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THE ERADICATION OF TUBERCULOSIS, WITH PARTICULAR REFERENCE TO SOUTH WALES*

BY

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When I received your invitation to address the Division I was naturally delighted that you should have done me the honour to ask me to speak to you on a subject in which you are so particularly interested and about the technical aspects of which you are especially well informed. At the time of the invitation I had some little doubt as to whether consultations with various bodies would be completed in time, but was—as ever—optimistic and accepted the invitation gladly.

At the outset I would like to say that I am not presenting a scientific paper and I hope no one will be disappointed that I have no new scientific facts or statistics to present. If I refresh your memories with an outline of the scheme and succeed in answering some of the questions which I hope you will raise, I feel that our time will not be wasted.

. . . . .

Although originally it was because of the danger of infection of man with bovine tuberculosis that interest was aroused in the possibility of eradicating the disease from cattle, it has become increasingly clear that because of the economic importance of the disease to the cattle industry there is need to eradicate it if we are to increase production.

In my view, eradication of tuberculosis from cattle is essentially an agricultural problem and should be undertaken on economic and not public health grounds. I am, of course, fully aware of the fact that it is not necessarily more vital to man to have an abundant supply of animal products than to have these products free from disease-producing organisms. Conversely, I think that to-day's conception of public health goes far beyond mere freedom from transmissible disease; it embraces also adequate food.

I wish to stress that there can be no possible doubt about the necessity for eradication of tuberculosis on economic grounds and when it is eradicated it follows that the danger to public health from this source, which can only partially be combated by cumbersome and expensive methods, would also disappear. It should be remembered, of course, that the problem of human tuberculosis would not be solved by the elimination of tuberculosis from cattle.

At this point perhaps, I would like to digress and say a few words about some correspondence which has appeared in our professional journal under the heading "Attestation: Is it a good policy?" If I interpret correctly, in the original letter which started the correspondence it was sought—from a series of figures showing that in certain areas in this country, notably Scotland, the number of *notified* cases of tuberculosis in the human subject has not diminished to the same extent as in other areas and has in fact slightly increased—to advance a theory that milk from tuberculous cows contained something, called tuberculin, which inhibited the progress of tuberculosis in the human population.

The author did not advocate that milk contaminated with tuberculosis organisms should be drunk, but thought that the organisms could be killed by heat treatment and that such treatment would not neutralise the inhibiting tuberculin.

This is a new conception and differs from the view often expressed that by drinking contaminated milk an immunity is established. This latter view has been advocated by opponents of pasteurisation in the past. First, let me say a few words about the new idea. Well, frankly, there is no evidence that an inhibiting substance such as is assumed to be present in milk does in fact exist. It seems to me that the human tuberculosis situation as disclosed by the statistics in Great Britain is capable of being explained on much more likely grounds and these the medical authorities have given. If one looks a little farther afield it will be seen that the lowest mortality rate for tuberculosis in man in Europe is in Denmark, which was the first country to rid its cattle of tuberculosis in this hemisphere.

I will not bother you with extensive quotations of figures, but the following are the mortality rates per 100,000 inhabitants in a few countries in 1947 (the latest authentic figures): Denmark 30, U.S.A. 32, Holland 37, Canada 43, Sweden 51, England and Wales 55, Scotland 80, France 79, Hungary 106, Ireland 122. It is evidently not a hindrance to reducing the deaths from tuberculosis in man to eradicate bovine tuberculosis, for Denmark, U.S.A., Holland, Canada, Sweden, have all practically achieved this. Some other explanation, and the medical authorities have given good reasons, will have to be accepted to account for the higher figure in Scotland. Incidentally, the deaths from respiratory tuberculosis in Scotland for 1949 are down by 10 per cent. and it is predicted that the figure will continue to fall.

As regards the suggestion, which was at one time made in some quarters, that it was to a child's advantage to be exposed to uncontrolled infection by being allowed to drink milk infected with tubercle germs, I will only say that this is now condemned universally and those who favour the promotion of acquired resistance advocate the controlled use of a non-virulent vaccine such as B.C.G.

Those of us who are not impressed by statistics will be amused to note that the few I have quoted support a view diametrically opposed to that to be drawn from those quoted in the correspondence referred to.

So much for this digression.

Most of you will remember that in May, 1938, I gave an address to the Carmarthen Agricultural Society entitled "The Attested Herds Scheme and Its Development in South Wales," and again in March, 1940, I addressed the Society here assembled on the subject of "The Attested Herds Scheme in South Wales—Some Reflections." Now

* Presented to the South Wales Division, N.V.M.A., at Carmarthen, October 13th, 1950.

I am proposing to say a few words on tuberculosis eradication, with special reference to South Wales.

I hope the titles of the talks indicate that some progress towards the ultimate aim is being made. But for the intervention of the war I have no doubt that by this time a large part of South Wales would have been officially scheduled as free from tuberculosis.

General

Tuberculosis eradication has been tackled in many countries and so soon as the limitations of the so-called "Bang" and "Ostertag" methods were realised many were successful using the tuberculin test and control measures on an area basis. The methods employed in any country differed only in relation to its economy and resources. The proposals worked out for this country are not essentially different.

Perhaps it would not be inappropriate for me to give a broad outline of the plan to begin with, even though it has been well known for a long time. The end to be achieved is the eradication of tuberculosis from all cattle in the country and this is to be done by stages on an area basis. The first areas to be dealt with will be those in which the percentage of attested cattle is already high. In order to deal with such cases the Government has certain powers under the Agriculture Act of 1937. These powers include the right to declare eradication areas when the majority of the cattle therein are free from any particular disease. I mention this latter matter specially because it would seem that it is essential for the success of this plan that a majority of the cattle must be attested under the voluntary Attested Herds Scheme in the first instance.

The importance of the Attested Herds Scheme has been realised and you will be aware of its revision and attractive bonus provisions.

The Plan

Areas suitable as regards size, situation, etc., and containing a fair proportion of attested cattle will be selected as ready for development into eradication areas. In order to bring them to this state as rapidly as possible free tests will be offered in them. The free testing area may be slightly larger than the resultant eradication area, but if the whole free testing area is not included in the Eradication Area at once, it obviously would be added either wholly or in part in a very short time.

When a good proportion of cattle in an area have become attested and it appears that the area is almost ready for compulsory action, adequate notice will be given so that everyone will have the opportunity of coming in voluntarily and qualifying for bonus payments under the Attested Herds Scheme. It is important to note that those who do not enter the scheme voluntarily will not be eligible for attested bonus payments.

After the date on which the area is declared to be an Eradication Area all animals in it will be tested compulsorily and reactors slaughtered with payment of compensation.

When disease has been eradicated the area will be declared an Attested Area consisting entirely of tuberculosis-free herds.

South Wales

In South Wales the free testing area consists of the counties of Carmarthen, Cardigan and Pembroke and the part of Glamorgan west of the Swansea Valley, including the Gower Peninsula.

In the three counties area there are about 320,000 cattle of which about 62 per cent. are already in attested herds. I do not know exactly how many cattle are in the named part of Glamorgan, but this part has been included so that the normal flow and trade in cattle will not be interfered with unduly at the next stage which I am about to mention.

Notice is also to be given that in two years' time Carmarthen (excluding Bettwys Mountain side), Cardigan and North Pembroke will become an Eradication Area. South Pembroke, West Glamorgan and the Bettwys district of Carmarthen will be given a little more time to mature and will probably be added about a year later.

Eradication Areas

In considering the Eradication Areas the following points have been borne in mind:—

(1) An area should be as self-contained as possible in the sense that normally few cattle from outside are imported.

(2) There should be as little interference as possible with normal cattle movements. Attested cattle will be able to move into and out of the area.

(3) There should be marketing facilities inside the area for the cattle in the area and outside the area for the cattle in the adjoining area.

(4) The boundary of the area should be such as to obviate as far as possible the risk of contact with untested cattle and, from the administrative point of view, it should be plain to stock owners and the authorities.

Movement of Cattle

In the free testing area movements will take place as at present, *i.e.*, there will be no restriction on movement other than that required by the Attested Herds Scheme.

In the Eradication Area legislation will provide that movement inside the area will be controlled by making the requirements in this respect under the voluntary Attested Herds Scheme compulsory for attested herds and for other herds as soon as the visit for the initial tuberculin test is made. All movement of cattle into an Eradication Area from a place outside it will be prohibited except under licence and provision will be made for cattle to be moved through the area without coming into contact with animals in the area.

The conditions to be attached to licences will vary according to the type of movement, and movement, except for attested animals, will be to individual premises only, but no animal will be given a licence unless it has passed a tuberculin test within 14 days of the movement and such animals will require to be isolated and retested in 60 days.

As regards imported animals the same conditions will apply, *i.e.*, Irish cattle, provided evidence of having passed a tuberculin test within 14 days is produced, may be licensed direct to a farm in the area for isolation and 60 days' test. The Irish animals' landing place at Fishguard will be excluded specifically by the Order defining the Eradication Area.

Movement of cattle out of the Eradication Area will not be controlled unless experience shows that this is necessary in order to control movement in the area effectively.

Markets.—Markets in the area will generally be confined to animals from attested herds from both inside and outside the area and since boundaries are drawn in such a way that suitable markets are available for non-attested stock outside, no licences to markets in the area will be granted for animals other than attested animals. In con-

formity with this there will be no authorised markets for Irish cattle in this area.

If it is not practicable to avoid making provision for farmers outside the area to use a collecting centre in the area, special steps will be taken to segregate the animals from outside and to control their movement from the collecting centre.

Agricultural Shows.—No licences will be issued for non-attested cattle from outside the area, but permits for attested cattle will be issued under the usual conditions.

Miscellaneous

Legislation will also cover such matters as a requirement as to disinfection of premises, powers to mark animals for identification, declaration of numbers and location of stock when necessary, and slaughter of reactors and compensation.

As regards slaughter, the Ministry will have power in an Eradication or Attested Area to slaughter any animal which is certified by a Veterinary Inspector as reacting to the tuberculin test and also any contact animal. This does not mean that non-reactors in a herd where there are reactors will be slaughtered. It is intended to use this power only in cases where necessary in the interests of economy, using this word in a wide sense.

Valuation will be made by agreement, as in the Tuberculosis Order procedure, and in the case of valuable animals (over, say, £100) the owner will have the option of removing it out of the area instead of having it slaughtered. For the present, compensation will be paid on the valuation of the animal as an untested animal, but it is clear that as time goes on, such a basis of valuation will be difficult and some other basis will have to be agreed.

Attested Areas

When for all practical purposes an Eradication Area is free from reactors it will be declared to be an Attested Area. In attested areas movement will not be restricted, except to or from a herd which is subject to a restriction notice on account of reactors or because suspicion is attached to it for some other reason.

Movement into and out of an attested area will be much the same as described for Eradication Areas. The question of lengthening the interval between tests will also be considered, but individual herds may be tested at frequent intervals, *e.g.*, herds into which there have been frequent movements of animals for isolation and 60-day test.

Reactors found in attested areas will be slaughtered and compensation paid as in eradication areas.

One other matter I might mention in connection with the Attested Herds Scheme outside areas is that it has been agreed by the Ministry to take over any reactors found in an attested herd after it has been receiving bonus for four years and to pay compensation on a valuation of the animal as an untested animal.

There are various matters connected with the procedure to be adopted which I think can be dealt with more appropriately in the discussion, so with this outline I will end my address by saying that this Scheme for the Eradication of Tuberculosis is not one imposed by Government. It has been agreed by all the important representative bodies.

Cattle owners, veterinarians and administrators alike have decided not to compromise further with this disease by half measures of control or vaccination, but have agreed to co-ordinate the knowledge of the scientists and their combined resources to rid the industry and country of this menace. I hope you will all help.

BOVINE FIVE-EGG QUINTUPLETS

BY

H. P. DONALD

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Since nearly half the sets of human quadruplets and quintuplets are either all male or all female, it seems probable that most of these unisexual sets are of one-egg origin (Newman, 1942). It is of interest to know whether this applies also to cattle, but the data so far available for examining the point are rather scanty. It seems worth while, therefore, to put the following case on record.

On August 4th, 1950, a small roan Shorthorn cow belonging to Mrs. T. McMahon, of Grinan, Newry, Northern Ireland, produced a set of quintuplets which was reported in certain newspapers. Arrangements were therefore made, with the assistance of Professor J. Morrison and Mr. R. W. Hale, of the Hillsborough Research Station, to inspect the calves on August 14th with Mr. J. J. McCarroll, the veterinary surgeon who attended the case. According to his information, the calving lasted from about 1 p.m. to 5 p.m.; all the calves were born without difficulty, and the cow cleansed about 24 hours later. The afterbirth was unusually large, but was not examined in detail. No service date was recorded, but the cow was known to have been mated to a neighbour's roan Shorthorn bull. She was about four years old, and had had one previous calf. Considering her size—she was estimated to weigh about 10 cwt. —it seemed remarkable that she should have produced five live calves at a birth, but there was no reason to doubt it. When Mr. McCarroll arrived the calves had been born but were still wet and had not risen. Multiple births were looked on with disfavour in the district, so that there was no incentive to add a calf to the litter, and in any case the small size of the calves was highly significant.

When seen the calves were ten days old and receiving their mother's milk. They were very undersized but lively; the largest was reckoned to weigh not more than 45 lb., and the smallest about 30 lb., whereas a Shorthorn calf of normal size should weigh about 70 lb. at birth. Details of the calves are given in the table condensed from the form in which such information is recorded in the search for one-egg twins by the Animal Breeding and Genetics Research Organisation.

The fact that there were one red bull, two obviously different kinds of roan heifers, and two white heifers indicated immediately that (*a*) the segregation for colour was appropriate for roan Shorthorn parents, and (*b*) at least four different fertilised eggs were involved. The two white heifers required a rather closer examination, but they too were judged to be fraternal because although similar in colour and conformation, they differed in the shade of red within the ears, nose colour and whorl pattern. Hence the calves are classed as five-egg quintuplets.

It will be interesting to know whether such a small bull calf is capable of turning four heifers into freemartins, so it is hoped the calves will be reared and bred. Should any of the heifers prove fertile, however, it will not be clear whether vascular anastomosis had failed to occur, or whether the humoral agent causing misdevelopment in heifers co-twin with bulls had fallen short of the required quantities. (For a recent discussion of freemartins see Moore, 1947.)

Eleven earlier examples of quintuplets which have been

Table

Condensed Report on Quintuplet Calves

Sex	♂	♀	♀	♀	♀
Weight (est.) lb.	30	45	40	40	35
Colour	Red ; little white	Dark roan	Roan	White	White
Pattern :					
Head	Red	Red	Dark roan	White	White
Body	Red	White patches	Roan	White	White
Legs	Red	Mainly red	F. mainly red H. mainly white	White	White
Tip of tail	Red ; few white hairs	White	Roan	White	White
Inguinal region	White patch	White	White	White	White
Perineum	Brown	Pink	Pink	Pink	Pink
Muzzle	Red	Red	Red	White,	White
Nose	Bluish brown	Brown	Brown	Brown	Brown ; pink patch
Mouth	Pink	Pink	Pink	Pink	Pink
Lower jaw	Red	Red	Red	White	White
Eyelashes	Red	Red	Red	Roan	Roan
Forehead	Small white star	Large white star	Roan	White	White
Ears	Red	Red	Red	Roan inside	Light roan inside
Feet	Red	Mainly white	As for legs	White	White
Hooves	Black	Black	Black	Black and white	Black and white
Hair whorls :					
Forehead	Star	Star	Star	Star	Star
Eye	None	None	None	None	None
Poll	Twin stars	Twin stars	?	Star	Twin stars
Neck	None	None	None	None	None
Withers	None	None	None	None	Star
Back	Star	Star	None	None	None
Teats	4	4	4	4	4
Coat	Short	Medium	Medium	Medium	Medium
Poll hairs	Short	Short	Short	Short	Short
Health	Good	Good	Good	Good	Scouring

listed elsewhere (Donald, Biggar & Logan, in press) show a sex ratio of 24♂♂ to 31♀♀. The present case brings this to 25♂♂ and 35♀♀. Adding these to data on quadruplets gives a total of 73♂♂ and 89♀♀. The distribution of sets according to the number of males does not differ significantly from the binomical expectation (on a χ^2 test) for quadruplets, but for quintuplets the difference approaches significance. Further data are therefore required to determine whether (*a*) there is a real excess of females, and (*b*) whether one-egg "super-twinning" contributes as much to the production of high order multiple births in cattle as it does in man. Present indications are that it does not and this would be consonant with the low ratio (relative to man) of one-egg to two-egg twins characteristic of cattle.

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Weekly Wisdom

Let us try to conduct controversies with our friends as if they were friends.—"Cape Times."

MODERN TRENDS IN VETERINARY EDUCATION*

by

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The subject of Veterinary Education is so extensive that no person who has taken an active part in its promotion is fully capable of seeing it in its proper perspective. The danger lies in judging education through the smoked glasses of one's own special interest without making an effort to know the general trend of progress in other departments. There is no branch of human endeavour of greater importance than education, but it is surprising how uninterested the majority of members of the profession are in the subject; too many I fear once they have qualified as veterinary surgeons feel that having escaped from the tyranny of examinations they know all that is necessary for practice. How unfair many men are to themselves by failing to realise that it is necessary to maintain a life-long interest in personal training so as to keep abreast of the best work of the day. The danger of routine we are alive to when it threatens our health, but there is a further danger that we may lose our intellectual independence if we become too absorbed in work. I think there is no better way of preventing degeneration, so apt to overtake the veterinary surgeon who isolates himself from his veterinary brethren, than to break away from routine and attend meetings such as this, not only for the sake of what may be learnt, but also to build up professional harmony between members which prevents the bitterness and personal hostility which so often lead to complaints and accusations with which the Investigation and Disciplinary Committees of the Royal College of Veterinary Surgeons have to deal.

The Council of the National Veterinary Medical Association has been very much alive during the last ten years to the extension of further education of its members and I am sure many of you must have welcomed the many excellent handbooks on subjects of great importance to the clinician prepared by special committees and issued from time to time to every member of the Association.

I would like to pay tribute to a comparatively new service of further educational value which if it continues to develop as it has already done and extends its connections will be of ever increasing benefit to the profession as a means of confirming and reinforcing diagnosis in doubtful cases upon which sound rational treatment can be based—I refer to the Veterinary Investigation Officer Service. The practitioner need not be very scientific so long as he has a true appreciation of the dependence of his art on science; some few are still able to keep up with the use of instruments of precision and run a small laboratory by which their powers of observation are extended, but in the large practice with its multitudinous calls on the time of overwrought practitioners, that familiarity with the laboratory which gives confidence is lost. I am convinced that a much wider spread of clinical laboratories is needed throughout the country so that general practitioners can readily get the skilled laboratory aid needed daily for rational diagnosis and treatment. The logical location of such laboratories is, I think, in close association with the Divisional Inspectors' Offices of the Ministry of Agriculture and Fisheries. Collaboration between the practitioner and the laboratory

* Presented to the Welsh Branch, N.V.M.A., at Newtown (Mont.), October 27th, 1950.

worker must be to the advantage of both, the laboratory being a common meeting place for discussion, but the practitioner should as readily welcome meeting the laboratory worker at the farm. As the sources of advances in Veterinary Medicine originate in so many growing parts of many sciences the clinical laboratory worker, who has had in most cases only a general training in laboratory methods after completing his undergraduate training, should be able to seek help from a higher source when problems of extraordinary difficulty require investigation. No doubt the Ministry of Agriculture (Animal Health Division) is capable of building up complete teams of specialists for this purpose throughout the country based on a few chosen centres of which Weybridge and Lasswade are already in being. As local clinical laboratories increase it is suggested that the veterinary teaching schools linked or about to be linked with the Universities of the country should be given an opportunity to play a part in further developments, at least for work in the investigation of fundamental problems. In each of the veterinary schools there is, or soon will be, a varied team of special workers who through special study in a limited field of work have acquired a greater accuracy in the application of knowledge in their speciality and would thus be capable of giving great help to this service in an advisory capacity.

The Education of the Student

I feel that the problem of the education of the student could in many ways have been much better dealt with by a practitioner, preferably one who had recently passed through one of the schools and then gained some experience in practice. Possibly practitioners consider that it would be more charitable towards their former teachers to remain silent than draw attention to the shortcomings of their own training; if this is so, then I respect their silence.

The best training for veterinary students bristles with difficulties and will always be so because Veterinary Medicine, using this expression in its widest sense, is for ever changing with the result that it is becoming more and more difficult to know how to keep courses of instruction within reasonable limits so that students may go out with sufficient understanding to observe and think correctly and become good veterinary surgeons. All that a school can do for a student is simply to start him in the right direction; it does not make him a good practitioner, good research worker, etc., etc.—that is his own affair. The part of the curriculum most urgently requiring reform is that covering the pre-clinical years where memory appears to be overtaxed with too many details of little value. My impression is that the majority of students only learn pre-clinical subjects to pass examinations and immediately afterwards proceed to forget most of what they have learnt.

When the Royal College of Veterinary Surgeons extended the course from four years to five years in 1934 the object was, I believe, to improve clinical training, but the effect was rather to place more time at the disposal of teachers in the pre-clinical years, Anatomy being spread to the end of the third year and Histology and Embryology being elevated to the rank of separate examinations. The encroachment of pre-clinical subjects into the third year annulled the benefits likely to accrue from a greater amount of time being available for clinical training; in fact, there was less time for clinical training owing to the elevation of Parasitology to a major independent subject of examination. Two years of undivided attention to clinical subjects, not forgetting Clinical Pathology, Bacteriology, Parasitology, and applied Preventive Medicine, is none too long a time to give a student a representative experience in the handling of patients and their owners, the methods of examination, and the principles of treatment, keeping in mind the variety of animals with which we are expected to deal. There is also the added difficulty the schools now have to face of giving clinical training in two centres, one in the city for small-animal work and another in the country at a Field Station for large-animal work, and much experiment during the next few years will be required to frame a sound, balanced clinical training for every student.

When a student commences clinical training he begins to be more definitely interested in what he is going to do when he qualifies. With a view to directing the attention of students to the increasing choice of careers available on qualification and also in the hope that some might be encouraged to become more curious about certain studies bearing more directly upon the career they might fancy, I made an analysis of the Register of Veterinary Surgeons for the year 1950, comparing it with the year 1905 (Table I). The table serves to show to all interested in veterinary education how the profession as a whole is employed to-day compared with 45 years ago and how many more on qualification are now choosing some special field other than general practice. In spite of this, it is still important that all seeking to enter the profession should have a sound clinical training gained chiefly by the use of the five senses backed by knowledge of the new facts of science. Those whose bent is towards research posts must be prepared to undertake a further period of special training to fit themselves for such posts after gaining their basic qualification for registration.

One of the most striking changes which has occurred since 1905 of great significance to veterinary education can be seen in the table under the heading Veterinary Schools and Colleges, where there are set out the numbers of veterinary surgeons employed whole time in our veterinary schools. Whereas in 1905 the total for all the schools was 26, by 1950 the number had grown to 141, and as far as I can judge there are vacancies at present for about another 50 teachers. From personal experience I can give you some indication of how great the changes have been in the growth of the College with which I have been closely associated for 45 years, the last 40 as a member of the staff (Table II).

Up to the beginning of the first world war the finance required to run the school was comparatively small. The only laboratory courses worthy of the name in these days were those in Dissection and Histology, an indication that training was largely didactic. Clinical training was practically nil, students being dependent upon what they could learn from practitioners during vacations. Already when I joined the staff of the College a move was on foot to transfer the College to a new site, the prime mover being Dr. Bradley, who had the vision to see that veterinary progress in education depended upon extended accommodation for laboratory courses and adequate hospital facilities. The worries and difficulties which attended his efforts to raise finance to build the new College would have appalled most men, but he had the courage and tenacity to see it through. As soon as the skeleton of the College was roofed a move was made from Clyde Street in 1916 before the internal accommodation was completed and for many years old fittings from Clyde Street and odd tables had to serve in laboratories. By present standards we were modest in those days; we had to be, because grants from Government sources to support veterinary education were so small. Financial stringency continued to cramp development, though improvement of grants from Government sources on

TABLE I
THE REGISTER OF VETERINARY SURGEONS
and
THE SUPPLEMENTARY VETERINARY REGISTER

Year 1905		*Year* 1950
3,411	Register of Veterinary Surgeons	4,929
420	Register of Existing Practitioners	2
—	Supplementary Veterinary Register	222
3,831		5,153

Analysis of above Registers

Year 1905		*Year* 1950	
29	Ministry of Agriculture and Fisheries (A.H. Division)		
—	Advisory and Field Staff	326	
—	Research and Veterinary Investigation Officer Staff	78	
54	Ministry of Agriculture, Northern Ireland Veterinary Division	82	
	Research Division	6	
	Department of Agriculture, Eire Veterinary Services	81	
	Department of Agriculture for Scotland		
—	Veterinary Investigation Service ...	10	
—	Highlands and Islands Service	25	
83	—	—	608
	Veterinary Schools and Colleges		
9	Royal Veterinary College	38	
4	Royal (Dick) Veterinary College ...	35	
4	Glasgow University Veterinary School ...	21	
3	Liverpool University Veterinary School...	22	
—	Bristol University Veterinary School ...	5	
—	Cambridge University Veterinary School (including Department of Comparative Pathology)	5	
6	Dublin Veterinary College	15	
26	—	—	141
—	Municipal Veterinary Officers		45
—	Colonial Veterinary Services		160
—	Commonwealth Bureau of Animal Health...		2
—	Pirbright F. & M. Research Institute ...		5
—	A.R.C. Field Station, Compton		8
—	University of Wales (A.H. Dept.), Aberystwyth		2
—	Animal Diseases Research Association ...		5
—	Rowett Research Institute		3
—	Research Institutes (various)		10
—	Research and Advisory Appointments ...		34
—	Animal Health Trust		13
143	Royal Army Veterinary Corps		28
—	Cattle Breeding Centres		29
—	British Transport Commission		8
—	Animal Welfare Societies		13
252	Total Veterinary Surgeons in whole-time salaried posts		1,114
290	Veterinary Surgeons overseas (excluding Colonial Veterinary Services)		441
3,289	Veterinary Surgeons, Existing Practitioners, and Veterinary Practitioners in United Kingdom and Ireland in General Practice or Retired		3,598
	Grand total:		
3,831	Veterinary Surgeons and Veterinary Practitioners		5,153

TABLE II
STAFF OF ROYAL (DICK) VETERINARY COLLEGE

	1910	1950
Professional (Veterinary) ...	5	37
„ (Non-veterinary)	4 (4 part-time)	14 (10 part-time)
Technical and Administrative	6	71
Total	15	122

Cleaning staff is not included in the above figures.

a niggardly scale did take place during the next 20 years, but it was not until after the report of the Committee on Veterinary Education (Loveday Report) was issued in 1938 that really substantial support from Government sources was forthcoming.

In the summary of the Committee's Report, para. 2, p. 82, it is stated, " The State has not contributed liberally to the training of the profession. Veterinary education has been starved. The veterinary schools are overcrowded; teaching staffs are inadequate, and in some instances poorly paid; facilities for clinical and practical training are insufficient. If defects are to be made good, considerable expenditure must be faced. The system of education and courses of study also need amendment."

The Loveday Committee was right in putting in the front rank of its recommendations the material things without which no university or college or other educational institution can hope to fulfil adequately even the first of its dual functions of teaching and thinking. To-day, 12 years later, I think I am right in saying that the schools have made great progress towards making good the deficiencies of the past, thanks to the liberal support by the State. Briefly let me report progress. The old-established schools have been rehabilitated following the neglect of past years and planning of additional buildings at their main and Field Station centres is everywhere in progress; last year saw the commencement of the new school at Bristol University and rumour has it that Cambridge University at last is awakening to its responsibilities in Veterinary Education. Expenditure on laboratory equipment has never been so freely forthcoming, the only difficulty being that of supply which is a general complaint in all walks of life. Veterinary schools are ceasing to be overcrowded not because of any shortage of prospective students, in fact the demands for entry to all the schools far exceed the places available, but because no school now needs to depend upon student fees to balance its budget, and also because the fact is recognised that if the best education is to be given to students it is necessary not to exceed an annual entry which will make sound clinical training possible. Since 1946 the school with which I am associated has limited its intake to 50. Prior to this time numbers ranging from 80 to 100 were accepted to the first year which meant duplication of laboratory classes and a heartbreaking and almost impossible task for clinical teachers. The inadequacy of teaching staff to which the Loveday Committee referred has become much easier, but the decision of the Committee when it met again in 1942 to recommend the establishment of two additional schools at Bristol and Cambridge has served to accentuate the shortage of suitable candidates to meet the greatly increased establishments of all the schools.

Though salaries paid to teachers were improved a few years ago, teachers have continued to be the Cinderella of all the salaried whole-time veterinary services and, need I say, of their equivalents in general practice. This disproportion in salaries as far as teachers are concerned is however approaching solution with the linking of veterinary schools, old and new, to their respective Universities, which I hope will be a stimulus to a number of our abler young men to consider an academic career, but the lag in recruitment to bring staffs of schools up to full strength will continue for some time as trained men simply are not available.

INSUFFICIENCY OF FACILITIES FOR CLINICAL AND PRACTICAL TRAINING

The Loveday Committee in its first report concluded that clinical training in bovine diseases was a weakness in all veterinary schools in the country and went to considerable

length in its report in proposing ways and means to put this right. The Committee favoured " the necessity of the schools working in co-operation with practitioners. This can best be brought about by fostering the hospital system," para. 36, p. 23. Further, " We believe that the greatest advantages will be obtained by placing these hospitals side by side with the Field Stations," para. 37, p. 24. When the report was first published I was very sceptical about the solution of this problem of providing clinical training in cattle diseases through a hospital system and I must confess that I am still of the same opinion. The majority of the cases in cattle met with in general practice are minor cases or cases which must be considered as part of a herd problem and are not the types which one would think of sending into hospital.

The general practitioner is quite prepared to hand over cases about which he cannot make a diagnosis or whose treatment he cannot undertake—useful enough teaching material up to a point but apt to give students a wrong idea of what to expect once they are launched into practice as assistants.

Certainly, maintain a hospital with accommodation for cattle and horses, but it should merely be part of a clinical centre at the Field Station close to the block of buildings housing the various forms of farm stock used for teaching purposes in Animal Management, Veterinary Hygiene and Preventive Medicine (Animal Husbandry) and Nutrition. From this Clinical Centre an Ambulatory Clinic should be developed on the lines of a general practice with sufficient staff capable of instructing small groups of students in the fundamental methods of Clinical Medicine, Surgery, and Obstetrics on the farm. The dairy herd on the Field Station should be large enough to provide basic training in pregnancy diagnosis at all stages of gestation. On the above lines we in Edinburgh are in process of developing our Field Station and are fully alive to the necessity of devoting our energies to improve the use of such teaching material as is at our disposal.

Though not exactly clinical training, the subject of Animal Management, by which the student learns to handle animals and observe animals in health, was never more important than it is to-day. In this mechanical age—so different from the world of 40 to 50 years ago—the subject of Animal Management has a training value which many wedded to science are rather apt to despise as something of very secondary importance. When a student qualifies and goes into practice, even though his training in science be excellent, unless he is capable of handling and examining animals in a practical and methodical way and shows that he is familiar with their habits he is very apt to fail as a general practitioner. As one of the reforms in the pre-clinical years the importance of the subject of Animal Management as a means of breaking the monotony of studies in purely scientific subjects should not be forgotten, as a judicious mixture of scientific studies and work based largely upon doing things with animals will help to build up that combination of body, mind, and heart which transcends narrow intellectualism.

The dangers of isolation of our students from students belonging to other Faculties is one which needs to be guarded against in locating Field Stations for veterinary purposes. It so happens that the Hostel on the Bush Estate close to the Royal (Dick) Veterinary College Field Station is merely a makeshift arrangement in the old Mansionhouse for the accommodation of a limited number of students until a completely new and up-to-date block is built with individual study bedrooms and proper residential facilities. Not being ready to deal with students of the fourth year at the Field Station because lecture rooms, laboratories, and hospital buildings are not yet built, the hostel has been completely occupied by between 30 and 40 of my first year intake, who come into town by special bus each morning and return in the evening. It is too early to judge whether youths, all about 20 years of age, are going to take kindly to such isolation, but it is at least an experiment from which reliable information for future guidance can be gained. I will certainly be happier when a larger hostel is built so that students of as many Faculties as possible can live together and gain that wider education which comes from mixing students with different vocational leanings.

I would be doing less than justice to my subject if I did not refer to the other important function of veterinary schools which they cannot afford in the future to neglect. I refer to the thinking function by which the boundaries of our professional knowledge are enlarged, commonly called research or more simply investigation.

The growth of professional staff in the veterinary schools of this country is one of the greatest benefits the profession has derived from the implementation of the recommendations of the Loveday Committee and these benefits will, it is hoped, be still further increased when the schools are finally incorporated within the University system.

Financially teachers will benefit by the union with the Universities, but this is as nothing compared with the progress already under way in the development of higher work by the young and enthusiastic recruits to the professional staffs during the last 12 years. Opportunities for research are now available of which many who served in the schools before emancipation dawned in 1938 never dreamed. For too long the stress of routine class, laboratory, and clinical duties sapped the energy of capable men who had to carry on the work of departments single-handed or with quite inadequate staff, leaving little or no time for research work, but now the hard struggle is easing, though there are still some departments very short of staff where young men with ideas, enthusiasm, and energy are required so that veterinary schools can fulfil their dual function of teaching and thinking. These are exciting times in the field of Veterinary Education, for the old order changeth and happy those who can change with it.

SALE OF VETERINARY PREPARATIONS IN SOUTH AFRICA

Among the resolutions on the agenda for the sixth annual conference of the Pharmaceutical Society of S.A., to be held in Kimberley next April, says *The Pharmaceutical Journal* in its "South African News" feature, are two which call for action to stop the sale by general dealers and co-operative stores of substances which can be classified as poisons and therapeutic substances. Under the law at present a general dealer may sell poisons, *e.g.*, sulphonamides, and antibiotics, such as penicillin, if these are registered as veterinary remedies under the Fertilisers, Farm Feeds Seeds and Remedies Act of 1947, and are appropriately marked as being for veterinary use. It has, however, been found that dangerous drugs not so registered are also being sold and that the public is using the "veterinary remedies" for the treatment of human ailments. The anomalous effect is that whereas a pharmacist must exercise great care in the sale of poisons the storekeepers handle them almost indiscriminately, and the growing familiarity with new poisonous drugs and antibiotics and vague public understanding of their action is considered to make it most undesirable that they should be so freely accessible as to constitute a danger to the health of the community.

* * * * *

The Stationery Office have published in one volume (Pp. 145, 4s. 6d. net) a collection of the Statutory Rules and Orders and Statutory Instruments which apply to the sale of food and drugs. The Orders have been revised up to December 31st, 1948.

CLINICAL COMMUNICATIONS

AN UNUSUAL CASE OF INTESTINAL DIVERTICULUM

BARBARA G. CAYLESS

AND

NORMAN P. MALE

Subject.—Two-year-old Elkhound bitch.

History.—When first seen the bitch had a temperature of 106° F., was off food, and, on examination, a swelling was noticed in the anterior part of the abdominal cavity. The owner remarked that the abdomen had been rather large since she was a puppy. Half a million units of penicillin were injected. She was seen the following day, when her temperature was 105°. Half a million units of penicillin again were injected.

On succeeding days the temperature gradually fell, but remained stationary at about 103° in spite of further injections of penicillin.

The bitch was generally quite lively, although at times she showed certain discomfort, inappetence was still present, and she began to lose weight gradually. The swelling was approximately the same size. About ten days after the first examination the swelling increased in size, the abdomen became more pendulous, and an X-ray was taken. A well-defined circumscribed shadow was observed. As the bitch's condition was deteriorating rapidly, it was decided to perform an exploratory laparotomy.

Operation

Temperature 103°. General anaesthesia induced by 5·25 gr. nembutal, intravenously. With the bitch restrained in the dorsal position, a mid-line incision was made.

On opening the peritoneal cavity a large quantity of opaque yellow fluid, approximately 4 pints, escaped. The omentum was inflamed, and a general peritonitis was present.

On exploring the abdomen a large swelling was felt in an anterior position, and, on exposure, it was found to be a diverticulum of the small intestine, measuring 8 inches by 5 inches, containing fluid, with a wall $\frac{1}{8}$ inch in thickness. (Fig 1.)

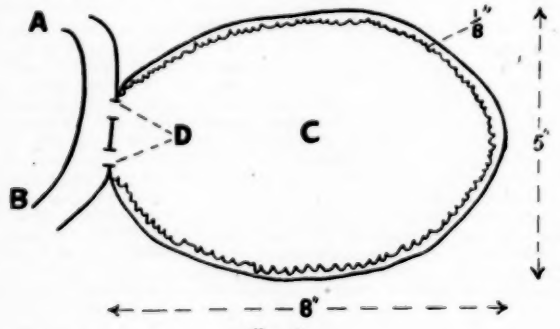

Fig. 1.

A B=Small Intestine. C=Diverticulum. D=Small Openings.

On opening this about 1 pint of fluid similar to that in the abdominal cavity escaped. The swelling was found to have a mucous lining, and it communicated with the small intestine.

Complete removal of the diverticulum was decided upon. After ligaturing the hypertrophied omentum, which was attached in several places, the swelling was freed—and finally was dissected from its point of contact with the intestine.

Two small openings were then noted in the cut edge of the intestine communicating with the lumen of the bowel (Fig. 2.)

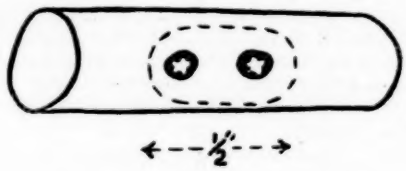

Fig. 2.

These openings were incised, converting the perforation of the gut edge into an elongated incision. (Fig. 3.)

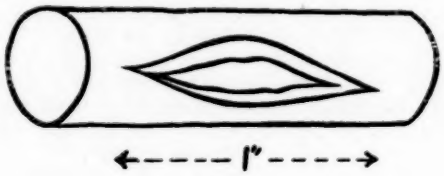

Fig. 3.

This was then sutured as for an ordinary enterotomy, two layers of catgut sutures being employed.

Post-operative Treatment

Glucose-saline, 20 c.c., was given intravenously immediately, plus 30 c.c. subcutaneously, as the bitch appeared to be suffering from shock, and 500,000 units of penicillin were injected. Five hours later a further 20 c.c. glucose-saline was given. Body temperature was maintained with hot bottles, etc.

Following morning.—Half a million units of penicillin. Temperature 102·5°—bitch very weak. Kept in heated room. A little glucose-saline was drunk voluntarily at intervals during the day.

Forty-eight hours.—Temperature 101·5°. Bitch much brighter. Drank water and milk. Two hundred thousand units of penicillin injected.

Seventy-two hours.—Temperature 101°. Bitch very bright. Took a little boiled fish. Two hundred thousand units of penicillin injected. Temperature then remained normal, and the bitch had a very good appetite—no more penicillin administered.

After one week the stitches were removed and the bitch was sent home—in normal health.

On the first day home the bitch devoured half a leg of lamb, and has not looked back since!

Remarks

The case is unusual, owing to the size of the diverticulum—the marked peritonitis present, the uneventful recovery, and the probably congenital origin.

It would be most interesting to know if anyone has had a similar case.

AN OUTBREAK OF ULCERATIVE LYMPHANGITIS IN YOUNG HEIFERS IN KENYA

R. M. S. NEAVE,

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Introduction.—In October, 1949, the writer was called in by the manager of a Kericho Tea Estate to investigate an outbreak of disease in a herd of 12 young heifers. These heifers were from 18 to 24 months old, all in good condition, and were grazing in a paddock which in part had been freshly cleared and in part was still covered with low clumps of thorn scrub.

Clinical Examination.—On examination, hard swollen lesions were found along the tracts of the lymphatics on both fore and hind legs. In some cases these swellings had burst, emitting a creamy yellow pus; in others, slowly healing ulcers had formed. Little or no pain was felt if an ulcer or swelling was handled. The popliteal gland was swollen in nearly every case (Fig. 1), and in a smaller number of cases the prescapular was also swollen or discharging pus. The lesions, in fact, simulated those of ulcerative lymphangitis in the horse. The temperature ranged very considerably. Those cases with unburst swellings showed an elevated temperature of 104° to 105° F.; those with open ulcers discharging pus showed temperatures between 102° to 104° F., while those with healed ulcers usually had a normal temperature.

Laboratory Examination. — Smears stained with Giemsa showed, on microscopical examination, a few club-shaped bacteria amongst the usual mass of cell debris and pus cells. Swabs, taken from the lesions and sent to the Veterinary Research Laboratory, Kabete, showed from their carbohydrate fermentations and cultural characteristics that *Corynebacterium equi* were present. Unfortunately no serological test could be made.

Treatment.—No curative measures were undertaken apart from moving the heifers on to fresh grazing and the application to the ulcers of the usual methods of local treatment. Spontaneous recovery took place rapidly in every case, and no deaths occurred among the 12 head affected.

Discussion.—Dr. H. S. Purchase, Chief Veterinary Research Officer, Kabete, reported a similar outbreak in the Rift Valley in 1944. In this case, where 21 head of steers died or were slaughtered, *C. ovis* was the causal organism. The attack therefore was more severe than that now reported from an Estate in Kericho. Purchase also reported the interesting fact that Masai tribesmen recognise a similar condition in cattle. They attribute this to the rhinoceros, which is frequently covered in sores, though, somewhat naturally, the causal organism has not yet been isolated.

From the literature available there appear to be very few other references to *C. equi* causing disease in cattle. Dimock and Edwards (1939) showed that this organism possessed species antigens, demonstrable by complement fixation tests, and that it is known to attack a variety of animal species.

Acknowledgment.—I acknowledge gratefully the help given and the tests carried out by Mrs. R. M. Simpson, B.V.Sc., M.R.C.V.S., the encouragement and advice given by Dr. H. S. Purchase, F.R.C.V.S., PH.D., B.Sc., Chief Veterinary Research Officer, Kabete. I am also indebted to the Director of Veterinary Services, Kenya Colony, for permission to publish this communication.

Fig. 1.—Swollen Popliteal Gland.

Fig. 2.—Ulcers on Hind Leg.

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SILICONE AS A SYRINGE LUBRICANT

Writing to *The British Medical Journal*, February 10th, G. H. Darling and J. G. C. Spencer describe the use of a silicone to lubricate syringes which are to be sterilised by dry heat. They noticed that when liquid paraffin was used as a lubricant, after repeated sterilisation, the paraffin frequently charred, despite careful cleaning. The resulting carbon deposit is difficult to remove and discolours the syringe so that the graduation marks become difficult to read; eventually, the plunger may stick in the barrel.

These difficulties, they say, may be overcome by using one part of Silicone D.C. 550 (Albright and Wilson) dissolved in two parts of methylated ether, as an alternative lubricant. Chemically inert, the silicone has a comparatively high boiling point and is unaffected by the temperature of sterilisation. No charring occurs, and, because of the water-repellent properties of the substance, the syringe may be readily cleaned after use. They also found that the coagulation of blood in the syringe was appreciably delayed and that the silicone appeared to have no effect on samples taken for bacteriological, haematological and biochemical investigations.

ANNOTATION

SOME NERVOUS DISEASES OF GOATS

Remarkably little is known about the nervous diseases of goats; the Handbook (N.V.M.A., 1950) contains no mention of such conditions apart from " functional " derangements exemplified by milk fever and acetonaemia. Scherer (1944), Conrs (1949) and Hutyra, Marek and Manninger (1949) refer briefly to the lumbar paralysis described by Emoto (see below) but to no other neuropathological disorder. The only reference to normal neuroanatomy is the paper by Dexler and Margulis (1900) on the motor paths of the sheep and goats.

Subsequent to the work of Gill (1931) in New Zealand on the rôle of *Listerella* (*Erysipelothrix*) *monocytogenes* in " circling disease " of sheep, comparable diseases were found in the same and other species, including goats, in many countries (see Graham *et al.*, 1943-44). When the nervous system has been involved in sheep, or goats, the process has been that of a purulent meningo-encephalitis—meningeal oedema, purulent foci in the nervous substance, with perivascular cuffing mainly affecting the brain stem, hippocampus and corpus striatum. Papers by Olafson (1940), Gifford and Eveleth (1942) and Kaplan and Lager (1945) deal with isolated cases of listerellosis in goats in the U.S.A.; no corresponding disease has been recorded in goats in other countries. King (1940) gave a detailed neuropathological account of an acute outbreak of disseminated encephalomyelitis in goats in the U.S.A.; the lesions were granulomatous in type, were restricted to the brain stem and there was myelin loss and mononuclear reaction mainly related to vessels. Listerella was associated with the condition; the bacteria were demonstrable in sections stained by Gram's method, but the disease was not reproducible. The observations were considered by King to be significant in the sense that the " demyelination " was a sequel to the direct localisation of the bacteria and was caused by the inflammatory response.

Partial agenesis of the cerebellum of goats was described by Verhaart (1942), but no further references to neural malformations or inherited neurological conditions such as cerebellar atrophy have been found.

" Krimpsiekte " of goats in South Africa is said to be caused by poisoning with *Cotyledon wallichii;* this appears to cause spasms and other vague nervous signs but no lesions in the central nervous system (see Henning, 1932, and Steyn, 1934).

In domestic animals, as a whole, there are no clearly defined entities which can be compared with the muscular dystrophies in man associated with specific hereditary, or degenerative, diseases of the nervous system, *e.g.*, amyotrophic lateral sclerosis, nor with the syndromes known as *Dystrophia myotonica, Myasthenia gravis* or those forming complexes with thyroid disease. An interesting myotonic condition of goats was, however, investigated by Kolb (1938) in the U.S.A. Apparently this has been known to occur since 1904 in a breed of obscure origin. When startled they became rigid in all four extremities and were unable to move for 18 to 30 seconds, without loss of consciousness. Typical myotonic reactions followed percussion of muscles and biopsies showed an absence of lesions; quinine and other cinchona derivatives relieved the myotonic states, while prostigmine and pilocarpine aggravated the signs. Kolb concluded that the caprine disease was identical with *Dystrophia congenita* (Thomsen's disease) in man. Brown and Harvey (1939) in a further study intimated that it was an abnormality in the muscle fibre and that the neuromuscular apparatus was not involved. (It is unknown, as yet, whether this caprine myotonia is related to a disease of baby pigs which has occurred in the U.S.A. (Kernkamp, 1950), in Australia, in Ireland (Lamont *et al.*, 1950), possibly in Ceylon (private communication from Professor McGaughey) and which was once seen personally in England. The symptoms in the piglets have been referred to as spasmodic muscular twitchings accentuated by excitement and sudden noise and in some cases the animals were unable to keep their balance. Biggart (1950—see Lamont) from a pathological examination of one case found no lesions in the nervous system and very minor changes in muscle.)

Emoto (1927) in Japan studied so-called lumbar paralysis of goats which had occurred there from 1911 to 1924, all animals having been imported from Switzerland, in which country the disease apparently does not occur. It was found in the late summer and autumn; adult animals were usually affected and became either totally helpless, paralysed in the hind limbs or affected with mild inco-ordination and ataxia. From this it must be apparent that the lesions are irregularly and widely disseminated. Pathologically the condition was designated a non-purulent lymphocytic meningitis with cerebro-spinal malacia. Claims were made regarding a streptococcal origin which can now be considered with scepticism. Hashizumi (1940) confirmed many of these observations, but his experimental work did not prove any infectious cause. Innes (1950) studied the pathology of so-called " lumbar paralysis " in goats in Ceylon (tissue material sent from there). This study emanated from work initiated by Crawford (1937-42) carried on by Perumal Pillai and Malkani (1950), who had made many observations of the field aspects of this disease and which are all covered in the paper by Innes. The essential lesion in this disease was concluded to be a patchy disseminated necrotising encephalomyelitis, but one showing many features which made it unique and not duplicated in other nervous diseases of man or animals. Attention was drawn to the presence of isolated discrete lesions and to the production of *status spongiosus* in severely affected parts and to the relative resistance of axis cylinders; the latter underwent bizarre swellings. From the facts as given by Emoto there was thought to be some pathological resemblance to the Japanese disease; from even the vague descriptions given it was also feasible that a paralytic disorder of the same kind might have occurred in Iran (Delpy & Kaweh, 1937) and in India (Crawford and the Mukteswar reports). The aetiology of the Ceylonese disease was not determined by Crawford and analysis of all available information showed there was no evidence to incriminate, or definitely to exclude, a micro-organismal or parasitic cause, nutritional factors, plant poisons and lathyrism amongst many other possibilities envisaged by Crawford. The disease had no resemblance whatsoever to swayback nor to any other established neuropathological condition of ruminants but " kumri " in horses was thought worthy of comparison by Crawford (see Rippon, 1940-41). Work done during the war in Japan, which has recently come to light, may throw an entirely different complexion on the whole problem and deserves particular emphasis in view of possible repercussions in many other directions. Yamagiwa and his co-workers (1941-45) described a paralytic disease of horses and sheep which occurred with the same seasonal incidence as the goat disease in Japan. The paralytic signs were of the same calibre. The pathological lesions described by them have a marked resemblance to those of the goats in Ceylon: the illustrations, although somewhat blurred and

on poor war-time paper, might confirm this impression. The most significant features of their investigations lie in their explanation of aetiology which should be of the greatest interest to veterinarians, neuropathologists and parasitologists alike. They state that the necrotising lesions in the nervous system (and consequently the paralysis during life) are caused by the invasion, of the cranial cavity and vertebral canal and thence to nervous tissue, of nematodes, *Setaria digitata* (Setariosis), and which are transmitted by mosquitoes. Although the reference was unobtainable, they mention that as a result of the work of a special Research Commission (1939-43)—clearly some experimental work was undertaken—no more doubt could exist regarding the identity and cause of the caprine paralysis. Setaria were not always found in the nervous lesions of the sheep or goats, but this may not be surprising in view of the wandering tendency of these parasites; the fact that they may reach the nervous system may be of far-reaching consequence. The disease is obviously of some economic importance in Japan and from what has been said may be widespread in domestic animals in the Orient. The Japanese workers apparently had in mind also some connection of Setariosis with the transmission of Japanese B (virus) encephalitis. In this connection it is of interest to recall the suggestions of Sabin *et al.* (1947) that helminths might be involved in the complex problem of the pathogenesis of this encephalitis—like the lung worm in swine influenza. The Japanese workers believed the type of nervous lesion rested on a " traumatic " basis and the ensuing inflammatory response—not unlike King's ideas of the " demyelination " in listerellosis, upon which comments have been made. No nematode parasites were found in the lesions of the goat tissues obtained from Ceylon, but this may not be significant, for it is emphasised by the Japanese workers (and in correspondence with Dr. Shoho) that they are not constantly found in all stages of the disease and hardly ever in the older sclerotic patches (examples of which were not found in the goat tissues from Ceylon). In a more recent letter from Dr. Shoho he emphasised again, in seeking for microfilaria, the necessity for examination of tissues from acute cases and that in sections it is better to make longitudinal preparations of the spinal cord. Manifestly there is abundant scope and great interest for further investigations to be made; naturally the primary concern would be to attempt to confirm, if possible, these Japanese results in the case of the caprine paralysis in Ceylon. The accidental lodgment of nematodes in the nervous system of animals has been commented upon by various authors; Cohrs (1949), however, gives the briefest mention to some work by Schwangart (1940), who apparently has recorded endemic paralysis in deer due to filaria.

J. R. M. Innes.

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REVIEW

[**Hormone Assay.** Edited by C. W. Emmens (Professor of Veterinary Physiology, University of Sydney); pp. xii + 566. New York: Academic Press, Inc., price $10.00.]

Eighteen distinguished contributors, five of them from Great Britain, have joined under the editorship of the new Professor of Veterinary Physiology at Sydney to produce this valuable work, which is bound to become the standard reference work in its field. It is gratifying that at Sydney, as at one of the British veterinary schools, a scientist of international repute occupies the Chair of Veterinary Physiology, and we shall await with interest the repercussion of this upon student and post-graduate teaching.

The text covers a very wide field. After an introductory chapter on statistical methods by the Editor there follow separate chapters on insulin, parathyroid hormone, adrenalin, posterior pituitary lobe hormones, melanophore expanding hormone, gonadotropins, adrenocorticotropin, thyrotropic hormone, mammogenic hormone, growth hormone, androgens, adrenal cortical hormones, the chemical assay of steroids, oestrogens, corpus luteum hormones, the chemical assay of oestrogens and pregnanediol, thyroidal substances, and the chemical assay of thyroxine and thyroid active substances.

Although the work is concerned with assay, it is inevitable that many aspects of hormonal physiology are dealt with, and indeed the treatment is in many cases more succinct and readable than in certain text-books of endocrinology. Thus for the veterinarian the book is of wider interest than might be supposed, and it could well be read with profit by all workers in the field of infertility, and by all clinicians interested in hormone therapy and, surprising as it might at first seem, in the " metabolic disorders." Those who deal with milk fever, hypomagnesaemia and similar conditions will find some of the assay methods for parathyroid hormone, *viz.*, the antagonism of magnesium anaesthesia by rise in serum calcium, and the fall in serum inorganic phosphorus, of more than passing interest.

Although chemical methods are described, the bulk of hormone assay work is still biological. The veterinary profession in recent years has displayed a renewed interest in the husbandry and diseases of laboratory animals and it

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will find an extensive and growing list of species employed for hormonal standardisation, including cats, dogs, rats, mice (including a strain of dwarf mice), guinea-pigs, rabbits, goats, chicks, cockerels, capons, drakes, pigeons, doves, a variety of amphibia and amphibian tadpoles, eels, goldfish and minnows. Moreover, the use of some species shows high differentiation, and there are valuable hints in this work on the value for various purposes of different breeds of rabbits. In one series of experiments reported the sensitivity of White Leghorn chick comb (to androgen) was ten times that of Rhode Island Red. Annual and seasonal variation in animal response are well dealt with and, to quote the Editor's words: " It causes some surprise to the uninitiated that a stock of animals kept under apparently constant conditions can vary so widely in its response to a standard drug as is commonly found."

This surprisingly readable book should find acceptance in a much wider field than that of the particular research workers for whom primarily it is intended.

REPORTS

[Tanganyika Territory: Annual Reports of the Department of Veterinary Service and Animal Husbandry, 1947 and 1948.]

1947

The Director of Veterinary Services, Mr. H. J. Lowe, C.B.E., retired from the Service.

Expenditure was £124,232 plus £13,400 on development. Revenue was just over £50,000.

Excellent rains occurred and stock generally flourished.

Some progress was made in the field of animal husbandry, and demand for animal products was keen. Rinderpest was well controlled by immunisation campaigns in the Northern, Lake and Central Provinces.

Shortage of staff, however, hampered activities, especially in the laboratory where unfortunately research had to be curtailed to a minimum.

Game as usual played an important part in the spread of disease, especially rinderpest.

1948

The staff position was again acute. In spite of over 5,500,000 inoculations against rinderpest during the period 1944-47 the disease situation deteriorated, mainly owing to the complications and difficulties resulting from game infection. It appears that a state of enzooticity both in large game concentrations and also in cattle in these areas has been reached.

The control of trypanosomiasis, pleuro-pneumonia and other tropical diseases occupied the time of the field staff and tuberculosis in the African cattle was noticed to be increasing, especially in the Southern Highlands and the Eastern Provinces.

Research into the chemotherapy of bovine trypanosomiasis showed dimidium bromide to be a most useful drug, especially in native cattle. Toxic reactions, however, occurred in some cases.

General routine diagnostic work occupied most of the time of the laboratory staff.

Animal husbandry activities included pasture research, milk supplies, breeding experiments and general stock farming.

The trade in livestock and animal products totalled well over one million pounds sterling.

J. C.

VICTORIA VETERINARY BENEVOLENT FUND

MEETING OF COUNCIL

A meeting of the Council of the Victoria Veterinary Benevolent Fund was held at No. 10, Red Lion Square, London, W.C.1, on Thursday, January 25th, 1951, when the following Members were present: Lt.-Col. P. J. Simpson (President) in the chair, Mr. Horace Bell, Professor J. B. Buxton, Major J. J. Dunlop, Mr. Arnold Spicer, Mrs. Evelyn Wooldridge and Major W. H. Wortley. Mr. C. W. Francis, Secretary, was in attendance.

Minutes.—The minutes of the previous meeting held on October 12th, 1950, having been published, were taken as read and signed as correct.

Apologies for Absence.—Letters of apology for absence were received from Professor T. G. Browne, Mr. H. W. Dawes, Mrs. R. E. Glover, Professor R. E. Glover, Professor J. McCunn, Professor W. M. Mitchell, Mr. H. W. Steele-Bodger, Mrs. J. M. Thomson (President, Ladies' Guild), Capt. A. Whicher, Professor G. H. Wooldridge, Dr. W. R. Wooldridge.

Correspondence.—(a) A letter from Messrs. Geo. A. White and Co., solicitors, enclosing cheque for £50 bequeathed to the Fund by the late Mrs. Eve Ellen Farr, who died on December 12th, 1949, was read.

(b) The Secretary submitted correspondence from an M.R.C.V.S., resident in Palestine but temporarily in England, asking for financial aid to assist his return to Palestine, he having been unsuccessful in securing an appointment under the Colonial Office. The decision taken by the Executive Committee was also communicated to the Council.

It was decided that the action taken by the Executive Committee be approved.

Investments.—The Treasurer reported that he had invested the balance in the Donations Account, amounting to £131 17s. 1d., in the purchase of £138 7s. War Loan 3½ per cent., and his action was approved.

ACCOUNTANT'S REPORT

The following report of the Accountant was read and approved:—

Since the previous Quarterly Meeting of Council, the following donations and one legacy have been received: —

Collecting Boxes

	£	s.	d.
F. Chambers	3	0	0
Central Veterinary Society	2	10	0
J. L. Cormack	3	3	0
Dumfries and Galloway V.M.A.	5	3	10
Eastern Counties Veterinary Society	7	0	0
East Midlands Division	11	9	6
R. H. Furniss	1	3	0
H. Gillmor	1	1	0
G. N. Gould	1	1	0
J. R. Hewer	4	0	0
C. G. Hopson	3	10	0
Lancashire Veterinary Association	3	0	0
C. Masson	1	0	0
Mid-West Veterinary Association	10	19	0
J. T. Morton		12	6
North of England V.M.A.	2	9	6
North of Scotland Division		3	6
North Wales V.M.A.	5	4	3
C. W. M. Park		10	6
J. Pasfield	1	10	0
J. O. Powley	1	1	0
Pugh, L. P., and Bruford, J. W.		9	6
Royal Counties V.M.A.	8	2	6
Scottish Branch N.V.M.A.	1	17	2

Scottish Metropolitan Division	2	15	3
South-Eastern Veterinary Association	8	4	0
Steele-Bodger, H. W., and Brancker, W. M.	2	4	0
Sussex Division	2	18	0
Western Counties Veterinary Association	10	17	6
A. Whicher	2	19	0
J. B. White	1	7	0
Yorkshire Veterinary Medical Society	5	0	0
Total of Collecting Boxes	£116	5	6
Association of Veterinary Teachers and Research Workers	10	0	0
Mrs. E. Ellen Farr Bequest	50	0	0
Society of Women Veterinary Surgeons (Proceeds of a Raffle)	2	0	0
A. Spicer (commission account *re* Mr. Hogarth Scott)	1	10	0
Anonymous	1	1	0
Total	£180	16	6

It was resolved, " That the warm thanks of the Council be conveyed to the respective donors."

Christmas Fund Account

The Secretary reported that the amount received during the year 1950 was as follows:—

	£	s.	d.
Victoria Veterinary Benevolent Fund Ladies' Guild	500	0	0
Christmas Appeal in *The Veterinary Record*	30	5	6
From Mr. Stainton and others in connection with Dog Shows	31	10	0
Southern Counties Canine Association ...	10	10	0
	£572	5	6

It was reported, also, that £301 16s. had been distributed in grants ranging from £20 to £4 to 35 recipients, and that, of the balance of £270 9s. 6d., the sum of £250 will be distributed in June next in accordance with the express wishes of the Ladies' Guild.

Cases

No. 132. Wife of M.R.C.V.S. (recently discharged from hospital). Three children, ages 29, 28 and 27.

The Secretary reported that Mrs. E. Wooldridge, having submitted a report on her visit to this case in November, the Executive Committee had made a further special grant of £10 and a monthly allowance of £8 13s. 4d., which took effect as from November, 1950. A letter dated December 22nd, 1950, from this recipient stating that she had successfully undergone a serious operation was also read.

The action of the Executive Committee was confirmed; it was unanimously agreed that the grant be continued and that the Executive Committee be empowered to take any further steps that may be deemed desirable in this case.

No. 256. Widow. The Secretary reported that her son wrote on November 6th, 1950, stating that his mother had died that day at the age of 91½ years and expressing thanks to the Council for the generous help which she received during the last few years of her life.

No. 272. Widow, aged 53. Mother of a young M.R.C.V.S. killed in a motor accident soon after qualifying.

A further application dated January 12th, 1951, having been submitted which disclosed the passing of her husband and the consequential alteration in her financial circumstances, it was resolved, " That in the special circumstances the present temporary grant of £8 13s. 4d. per month be continued and that the Secretary be instructed to suggest to the recipient the advisability of her approaching the Local Educational Authority with a view to the possibility of obtaining a training grant for her daughter, who is a medical student."

No. 274. Widow, aged 78 years. One married daughter, aged 56. Receiving grant of £4 6s. 8d. per month.

The Executive Committee reported that this recipient had had an accident early in December which necessitated a nurse being in attendance during the day and that the married daughter had appealed to the Fund to assist her in meeting the nurse's fee of £3 3s. per week. The daughter explained that she had tried to get her mother into hospital, but without success. The Executive Committee stated that an immediate grant of £4 4s. towards two weeks' fees had been made.

It was resolved, " That the action of the Executive Committee be approved and that additional assistance not exceeding £5 5s. be given to meet further nursing fees and towards any costs incurred in hiring an ambulance to convey this recipient to her daughter's home."

No. 275. Widow, aged 45. Two children, ages 16 and 14, at school. The Secretary reported that the Council's grant of £13 per month, passed at the June, 1950, meeting of Council, was for six months and terminated with the December payment. He had therefore caused a fresh application form to be completed which was read.

After careful consideration of the particulars supplied it was resolved, " That the grant be continued for the time being and that the Executive Committee be authorised to take any appropriate action which it may consider desirable, having regard to further information which may be received in this case."

Votes of Thanks.—It was resolved, " That the cordial thanks of the Council be conveyed to Mrs. E. Wooldridge for her valuable services in undertaking friendly visits to special cases receiving assistance by the Fund."

A hearty vote of thanks was accorded to the President for his conduct in the chair.

RABIES CONTROL IN ISRAEL

The January issue of *The World Health Organisation Chronicle* reports on the rabies-control programme in Israel, sponsored by WHO and outlined by the Expert Committee on Rabies at its first session,[1] which was put into operation in October, 1950.

Vaccination and registration of dogs has been undertaken in all parts of the country. The population in each area is advised by Press, radio and cinema that all dogs must be presented for registration and vaccination. Avianised virus from the U.S.A. is stored in refrigerators at Tel-Aviv and distributed in thermos flasks to the veterinary officers responsible for the vaccination. Immunisation was commenced in the region where rabies is most prevalent, between Haifa, Tel-Aviv and the Jordanian frontier. Immunised dogs are tattooed on the ear if they have no collar to which a metal disc can be affixed. In view of the fact that avianised vaccine gives immunity for a year or a year and a half, no revaccination will be carried out before the end of that period.

Stray dogs are being systematically eliminated, either by shooting or gassing; since the beginning of the campaign their numbers have decreased considerably. Three quarantine stations have been constructed, each with 20 to 30 kennels. Dogs suspected of being infected with rabies, or bitten dogs, are kept there for examination. Biting dogs which have been vaccinated are kept under observation for ten days and released only if they present no symptoms of rabies. The brains of all suspected dogs are subjected to various examinations at a central laboratory, in Tel-Aviv, established for this purpose. Impression smears are made and then treated with Seller's stain, histopathological sections are examined, and mouse-inoculation tests are performed.

After dogs, jackals are the most dangerous vectors of rabies. Previous experiments have shown that poisoning by strychnine is the most effective method of eliminating these animals. Dead donkeys sprinkled with strychnine are used as a bait. A large-scale operation is anticipated for the beginning of 1951, when a sufficient quantity of strychnine will be available.

[1] *Chron. World Hlth. Org.* (1950.) **4**. 282.

IN PARLIAMENT

Gambia Poultry Scheme

STATEMENT BY THE COLONIAL SECRETARY

In the House of Commons on Wednesday of last week, in answer to questions by Mr. HURD, Sir WALDRON SMITHERS, Mr. GAMMANS and Mr. KEELING relating, respectively, to the advances made to the Colonial Development Corporation for the purposes of the poultry farm in the Gambia, the number of eggs imported thereunder, and enquiring whether in view of the failure of the supplies of eggs and dressed poultry he proposed to send out a commission of enquiry, or intended to modify or abandon the scheme, Mr. GRIFFITHS, Secretary of State for the Colonies, made the following statement:—

The Gambia poultry and general farming scheme was approved by the Board of the Corporation on May 20th, 1948, and sanction for the initial provision of capital in the sum of £500,000 was given on July 21st, 1948. After preliminary surveys, the Corporation began operations in the following year. Sanctions for the provision of additional capital amounting in all to £310,000 were given during 1949, and in addition, sanction was also given for the temporary loan to the scheme of £100,000 on August 29th, 1950. Up to date advances totalling £825,000 have been issued.

Good progress was made with the erection and stocking of the poultry houses; 38,620 eggs and 51,617 lb. of dressed poultry have been exported to this country. A further consignment of 7,000 lb. of poultry is on the way here, but the export of eggs, which is at present running at the rate of approximately 45,000 a month, has been discontinued and the farm's production is being disposed of locally.

There has been no fowl pest on the Corporation's farm, but during the summer of 1950 there were outbreaks of fowl typhoid, which caused the loss of 3,000 birds. It has since been brought under control by inoculation and the remaining stock of about 50,000 is in good condition. The laying stock took the brunt of the typhoid disease and, therefore, most of the poultry left is breeding stock, not laying stock, which explains the present low rate of egg production.

In December, 1950, the Board found that the situation was serious, and that a change of management was immediately required. The Board also sent a mission to the Gambia to investigate the scheme on the spot. The mission, consisting of Sir Ernest Wood, Joint Operations Controller; Dr. A. B. Fowler, Manager of the Animal Products Division, and Mr. A. M. Telford, Manager of the Agricultural Division, all members of the headquarters staff of the Corporation, left England at the beginning of this year and sent a preliminary report to the Corporation, whereupon the Chairman of the Corporation at once wrote to me, on February 15th, informing me of the position.

I regret to inform the House that, in the light of this preliminary report, it has become clear to the Board that sufficient feeding-stuffs for the number of poultry it had been intended to maintain cannot be grown on the land. Since the scheme as originally conceived stands or falls by the local production of feeding-stuffs, the Board are of the opinion that they will have to modify the scheme considerably and to incur a loss in their accounts of a substantial proportion of the capital committed to the scheme. The Board will, however, remain liable to repay to His Majesty's Government the full amount of the capital advances made towards the scheme, and the interest due thereon.

The mission is now back in London and its report is being considered in detail by the Board. When that has been done, and the Board have formulated proposals for the future of the scheme, I will make a further statement to the House.

Mr. HURD: May we have an assurance that no more of the British taxpayers' money will be put into this effort to clear the bush in the Gambia and create a sandy desert until we have had reliable and expert advice that proper use will be made of these resources? Further, can the Minister tell us how the birds that will survive are to be fed for the next few months?

Mr. GRIFFITHS: As I said, this scheme was based upon the possibility of feeding-stuffs being grown on the land. This has been found impossible, and I repeat what I said last week about the matter: that this does create a very serious problem indeed for all colonial development. At the same time, let me say that if we are to solve these problems risks must be undertaken, and sometimes losses incurred.

Mr. KEELING: Are we to understand that the last director of the scheme was dismissed and did not resign, as was previously stated?

Mr. GRIFFITHS: The responsibility for employing and dismissing staff is entirely for the Board.

Mr. GAMMANS: Is not it a fact that this scheme was launched, with resultant loss of taxpayers' money, without the slightest experiment being made, either into the possibility of the growing of feeding-stuffs or into the keeping of fowls in very large numbers in the tropics?

Mr. GRIFFITHS: This scheme was launched after very full consideration by the Board, on which there sit very eminent and experienced business men.

Mr. EDEN: Can the right hon. Gentleman explain why it is that whereas when the scheme was launched the whole thing was admitted to depend on the local growing of feeding-stuffs, it has only now been discovered that no such feeding-stuffs can be grown? Can he further explain why the shortage is so great, considering that he has only half the number of poultry for which he originally budgeted, the other half having had to be killed already?

Mr. GRIFFITHS: The knowledge which we now have that the ground will not grow the necessary feeding-stuffs has been acquired after the experience of two seasons and, if I may be allowed to say so, from my study of this problem. All we can get from the experts is the best advice they can give, but all of them say that in advice about Africa there are no precedents to guide them.

Mr. EDEN: Will the right hon. Gentleman look up the assurances about this ability to grow local feeding-stuffs given over and over again in response to Questions put over and over again and doubts expressed by my hon. Friends as to whether it could be done? As the whole scheme was based on it why is it that only now, after all this time, it is discovered that feeding-stuffs will not grow there at all?

Mr. GRIFFITHS: As I have said, the advice given to the Board justified them in going on. All advice on this problem was given with the one consideration in mind that it was the best advice which could be given, but that there was no experience.

Mr. LENNOX-BOYD: As the right hon. Gentleman has referred to eminent advice, may I ask whether the work of the Medical Research Council was ever considered while this scheme was in its early stages, or better still, before it started; and, second, what possible justification there was for the Minister of State for Colonial Affairs being allowed to say in the House, as recently as last April, that 20,000,000 eggs a year would be coming to the British market?

Mr. GRIFFITHS: All the answers given about projects under the jurisdiction of the C.D.C. are given in the House after consultation with them. I could not, without notice, say what advice was sought at the early stages—in 1948.

Mr. EDEN: In view of the seriousness of the situation revealed by the right hon. Gentleman's answer, we shall, of course, seek a convenient opportunity to debate the matter.

Mr. GRIMOND: Will the scheme now depend on imported feeding-stuffs, and, if so, would it not be better to wind it up and bring the feeding-stuffs to this country? Second, did I understand the right hon. Gentleman to say that the moneys advanced would be repaid? If so, from what source will they come?

Mr. GRIFFITHS: I will answer the last part of that question first. The Board is running 50 schemes and projects at the moment and it has an obligation, taking them together, and one with another, to make them commercial successes. When the Board was initiated it was accepted, as I hope it is by everyone, that the Board must sometimes take risks which might cause losses. Unless it does take risks, it would be impossible for us to do this job at all. In answer to the first part of the question, the Board is now considering in detail the report of the mission which has now returned. It will formulate new proposals and, when they are ready, I will make a further statement to the House.

Questions

FOWL PEST

Mr. HAYMAN (March 1st) asked the Minister of Agriculture how many outbreaks of fowl pest have occurred in Cornwall in recent months; how many birds were destroyed; and how much has been paid as compensation.

THE MINISTER OF AGRICULTURE (Mr. THOMAS WILLIAMS): There have been four outbreaks of fowl pest in Cornwall in recent months, all of which occurred in January. One thousand one hundred birds have been slaughtered, involving compensation of about £2,100.

Mr. DYE asked the Minister of Agriculture what assurances he has been given that dead poultry at present being imported from countries where fowl pest is endemic have not suffered from the disease or been in contact with birds that have died from it.

Mr. T. WILLIAMS: Arrangements have been made with the Polish Government that should ensure so far as it is practicable to do this, that infected poultry carcases are not sent to this country, and an assurance has been given that these arrangements are being complied with. Similar arrangements were made with the Hungarian

Government, though at present poultry is not being imported from that country.

Mr. Dye asked the Minister of Agriculture whether he is now in a position to make a statement on the import of dead poultry from countries where fowl pest disease is endemic.

Mr. J. H. Hare asked the Minister of Agriculture if he will give the latest figures of the incidence of fowl pest since his last statement; and if he is now in a position to give a decision as to whether an embargo will be placed on poultry imports from foreign countries where the disease is known to exist.

Mr. J. Langford-Holt asked the Minister of Agriculture whether, in view of the large number of protests he has now received from branches of the National Farmers' Union, he will ban the import of poultry carcases from countries known to be affected by fowl pest.

Mr. T. Williams: I am circulating in the *Official Report* a table giving the number of outbreaks of fowl pest confirmed since January 25th, 1951. I am glad to say that the latest figures show a marked decrease in the number of outbreaks. As regards imports, I regret that I cannot at present add to recent statements on this subject.

Mr. Hare: Can the right hon. Gentleman give an assurance to the House that, if the incidence of this disease increases in the future, he will keep an open mind on the question of an embargo on imports from those countries where the disease is known to be endemic?

Mr. Williams: Yes, certainly.

Mr. Alport: Has the right hon. Gentleman made any protest to the Minister of Food about the continued importation of dressed poultry direct to American Service camps in Norfolk?

Mr. Williams: The hon. Member had better ask the Minister of Food whether I have made any protest or not.

Following is the table:

Number of Outbreaks of Fowl Pest

	England and Wales	*Scotland*	*Total*
Week ended:			
February 1st	45	2	47
February 8th	51	9	60
February 15th	31	9	40
February 22nd	31	6	37
Four days to February 26th ...	5	3	8
	163	29	192

. . . . . .

Mr. Granville (March 2nd) asked the Minister of Agriculture if he is now in a position to state what fresh measures he contemplates to prevent the spread of fowl pest.

Mr. T. Williams: I do not contemplate any major change in the control measures outlined in the statement that I made on January 25th, though a number of steps have been taken to increase their efficacy and others may be found to be desirable in the light of experience. There is reason to hope that these measures are being effective in checking the spread of fowl pest and that it will be possible to bring the disease under control. My Department will continue to give publicity to the fact that it is still of vital importance that all poultry keepers should take strict precautions to prevent the infection of their flocks; that they should keep a close watch for any sign of illness amongst their birds; and that they should immediately report any suspicious symptoms to the authorities.

. . . . . .

Civil Servants (Car Allowances)

Mr. Dodds-Parker (March 1st) asked the Chancellor of the Exchequer what allowances are paid to civil servants for using their own cars on Government service; how far these allowances are tax-free; and what are the comparable tax allowances given to private individuals using their cars on business.

Mr. Jay: Allowances are paid to civil servants at rates varying according to horse-power and mileage, of from 4d. to 8d. per mile for journeys for which the use of public transport would not be suitable or practicable, and at the rate of 1½d. per mile for journeys which could satisfactorily be undertaken by public transport. These allowances are not chargeable to tax. Tax would not be charged on any similar allowances of reasonable amount paid to private employees using their cars on their employers' business.

New Slaughterhouses

Mr. Hayman (February 28th) asked the Minister of Food if he will make a statement on the provision of new central abattoirs in West Cornwall.

Mr. F. Wiley: My right hon. Friend is hoping to make an early statement about certain immediate proposals for new slaughterhouses, but I am afraid that it is unlikely that any of these will be sited in Cornwall.

NOTES AND NEWS

Diary of Events

Mar. 14th.—Meeting of the Editorial Committee, N.V.M.A., 3 p.m.; Editorial Executive, 1.30 p.m.

Mar. 15th.—Meeting of the Herts and Beds Division, N.V.M.A., at St. Albans (70, Holywell Hill), 7.30 p.m.

Mar. 15th.—Meeting of the Ayrshire Division, N.V.M.A., at Ayr (Dalblair Hotel), 2.30 p.m.

Mar. 16th.—Meeting of the North Wales Division, N.V.M.A., at Wrexham (Wynnstay Hotel), 2.30 p.m.

Mar. 16th.—Annual General Meeting of the Biochemical Society, University College, London, W.C.1, 11.30 a.m.

Mar. 22nd.—Annual General Meeting of the Western Counties Division, N.V.M.A., at Exeter (Imperial Hotel), 2.30 p.m. Assemble for luncheon, 12.45 p.m.

Apr. 9th and 10th.—Annual Congress of the Laboratory Animals Bureau, in the University of Liverpool.

Sept. 23rd-29th.—Sixty-ninth Annual General Meeting and Congress of the National Veterinary Medical Association, at Eastbourne.

QUARTERLY MEETINGS OF COUNCIL AND STANDING COMMITTEES N.V.M.A. DURING 1951

The following dates are given for remaining meetings this year, chiefly to give members plenty of time to reserve hotel accommodation.

In London

Monday, April 16th:
2 p.m. Organising Committee
4 p.m Parliamentary and Public Relations Committee.

Tuesday, April 17th:
10 a.m. Veterinary State Medicine Committee.
12 noon Home Appointments Committee.
2.15 p.m. General Purposes and Finance Committee.

Wednesday, April 18th:
11 a.m. Council

In Edinburgh

Wednesday, July 11th:
11 a.m. Home Appointments Committee.
2 p.m Organising Committee.
4 p.m. Parliamentary and Public Relations Committee.

Thursday, July 12th:
11 a.m. Veterinary State Medicine Committee.
2 p.m. General Purposes and Finance Committee.

Friday, July 13th:
11 a.m. Council.

* * * * *

"THE VETERINARY RECORD": A REQUEST

We regret the inadvertent dispatch to some readers of two copies of the issue of *The Veterinary Record* of March 3rd. With apologies for the trouble thereby caused, we would request such recipients to be good enough to return the duplicate copy to the N.V.M.A. at 36, Gordon Square, London, W.C.1.

* * * * *

Dishorning of Cattle

The Technical Development Committee of the Association has under review methods of dishorning cattle, and is particularly anxious to secure information on methods used in practice.

Dishorning by the Rubber Ligature Method

Information is required, particularly, on methods of dishorning using rubber bands or ligatures, with special reference to (*a*) technique used, (*b*) pain involved during the whole process of the removal of the horn, and (*c*) reliability in effecting removal of the horn, and length of time taken.

It would assist the Committee greatly if members would respond promptly to this appeal for information by writing on the subject to the General Secretary, N.V.M.A., 36, Gordon Square, London, W.C.1.

* * * * *

PERSONAL

Births.—Betty.—On February 16th, 1951, Musgrove Park Hospital, Taunton, to Kathleen, wife of Ronald W. Betty, a son—George William.

Groves.—On February 23rd, 1951, to Jean, wife of T. W. Groves, B.SC., M.R.C.V.S., a daughter—sister for Nicholas.

MacLeod.—On February 15th, 1951, to Gwendoline (*née* Evans) and Donald MacLeod, The Gables, Kington, a son—Ian.

Turner.—To Audrey M. Turner, M.R.C.V.S. (*née* Abrams) wife of Richard S. Turner, a daughter, Rosemary Jane, sister for Michael and Brian.

* * * *

Marriages.—Birkett—Turley.—On February 17th, 1951, at Kano, Nigeria, John Douglas Birkett, M.R.C.V.S., only son of Mr. and Mrs. J. T. Birkett, of Hudgill Farm, Alston, Cumberland, to Winifred Mary Turley, youngest daughter of Mr. and Mrs. P. Turley, of St Helens, Lancs.

Macaulay—MacRury.—On February 19th, 1951, at Hope Street, Free Church, Glasgow, by the Rev. A. Macdougall, M.A., assisted by Rev. Iain MacRury, M.A. (brother of the bride), Donald J. Macaulay, M.R.C.V.S., son of the late Mr. Donald Macaulay and of Mrs. Macaulay, Sollas, North Uist, to Marion (Morag), youngest daughter of Mr. and Mrs. Coll MacRury, 42, Pollok Street, Glasgow.

* * * *

Forthcoming Marriage.—Gunstone—Skelton.—The engagement is announced of Angela Cambridge, only daughter of Mr. and Mrs. Leslie J. Skelton, of Ulogan, Chorltonville, Manchester 21, to James Walker Gunstone, B.SC., M.R.C.V.S., younger twin son of Mrs. Gunstone and the late F. G. Gunstone, Withington, Manchester, 20.

* * * * *

R.C.V.S. OBITUARY

Wilkins, Henry Cyril, 3, Church Street, Crewkerne, Somerset. Graduated London, July 13th, 1923. Died at Crewkerne Hospital, February 27th, 1951.

The Late Colonel Alfred Smith, F.R.C.V.S.

Colonel Alfred Smith, whose death we recorded with much regret in our last issue, joined the Army in 1893 and served for 30 years in India. After a time as principal of Lahore (Punjab) Veterinary College, he went to Bengal. Colonel Smith had lived at Seaford for nearly 30 years. A keen golfer, he was a valued member of the Blatchington Golf Club (Seaford). He leaves a widow and two sons, both of whom are abroad.

MR. H. C. WILKINS, M.R.C.V.S.

An Appreciation

The death after a comparatively short illness of Cyril Wilkins at the early age of 54 will have come as a great shock to his many friends in the profession.

Apparently a perfectly fit man at Christmas he was suddenly stricken. His advisers suggested an operation as a last resort and Wilkins, as always, decided quickly and if there was a chance, agreed to take it.

He did not regain consciousness and was thereby saved great pain—something which he had always tried to do for his own patients.

After serving throughout the 1914-18 War he qualified in London in 1923 and eventually entered the old-established practice of Mr. E. J. Thorburn, of Crewkerne. Later he married Miss Thorburn and embarked on the life of a country practitioner for which rôle he was eminently suited. His ability soon won him the confidence and respect of the farming and sporting community which he held all his life.

Wilkins's real love was horses—for which his advice was sought near and far—but he applied his knowledge to all branches of the practitioner's art with great success.

We who are left behind to continue his work will sorely miss him and his ever ready sound advice and encouragement. But the example he set will be a guide and inspiration in the difficult days which lie ahead.

His many friends in the profession and in the agricultural and sporting circles of which he was so much a part, will wish to extend to his widow and son every sympathy in their great sorrow.

W. B. M.

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O.E.E.C. LECTURES AT THE LONDON AND EDINBURGH VETERINARY COLLEGES

Visit of Eminent U.S.A Veterinarians

Under the auspices of the O.E.E.C., Dr. R. R. Birch, of the University of Cornell, U.S.A., will deliver a lecture on Brucellosis in Cattle and its Control, at the Royal Veterinary College, Royal College Street, London, N.W.1, on Monday, March 12th, 1951, at 4 p.m. The Chairman will be Sir Thomas Dalling, Chief Veterinary Officer of the Ministry of Agriculture and Fisheries.

On the same day and at the same time Dr. I. E. Newsom, of the Colorado Agricultural Experiment Station, U.S.A., will deliver a lecture on Sheep Diseases, at the Royal (Dick) Veterinary College, Edinburgh. The Chairman will be Dr. Russell Greig, Director of the Moredun Institute, Gilmerton, Edinburgh.

In each case a discussion will follow the lecture, and veterinary surgeons, farmers and all who are interested are cordially invited to attend.

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NETHERLANDS SUMMER COURSE ON DAIRY SCIENCE

We are informed that a number of places will be available for visitors from the United Kingdom at the Summer Course on Dairy Science which is being held at the Agricultural University at Wageningen, Holland, from June 18th to July 7th, 1951.

An address by the Rector Magnificus of the University, in which he will speak of Wageningen as a centre of agricultural science and the organisation of education at the University, will introduce the course, which will deal in detail with the following main topics: breeding of dairy cattle in the Netherlands; feeding, physiology and management; dairy products and their industry. The lectures will be delivered in English and the speakers will be selected from among the scientists connected with the University and the Autonomous Institutes, the staff of the Extension (Advisory) Service of the Department of Agriculture and the leaders of important organisations in the field of animal husbandry and dairying.

A number of attractive excursions, including visits to the laboratories of Wageningen and representative cattle breeding centres, have been arranged.

The organising committee will welcome enquiries, which should be addressed to the Secretary of the Agricultural University, 18, Herenstraat, Wageningen, Netherlands.

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THE SOUTH-EAST MIDLANDS VETERINARY ASSOCIATION

Our Notices column recently has carried the welcome intimation of the formation of the above Association, at the inaugural meeting of which Mr. F. A. Gordon, of Northampton, was elected as President, subject to confirmation of officers at the first general meeting, which was held at Northampton on Wednesday last. Thus is carried a stage further—and possibly to completion—the process of cementing professional association in the South Midlands which was initiated so laudably and with such success some three years ago by those responsible for the formation of the Hertfordshire and Bedfordshire Veterinary Society. The whole area is one which now benefits from the residence of a large number of young, enthusiastic practitioners, and this latest evidence of their appreciation of the value of corporate activity merits, and doubtless will receive, the support of all those in a position to promote its success. The Hon. Secretary of the new Association is Mr. Eric G. Sutton, of 61, Derngate, Northampton, who will be pleased to answer any enquiries.

ARMY VETERINARY AND REMOUNT SERVICES

We are indebted to the Editor of the *Journal of the Royal Army Veterinary Corps* for the following features relative to the retiring Director of the Army Veterinary and Remount Services, Brigadier Plunkett, and his successor, Brigadier Heveningham, the succession of Brigadier Kelly to Brigadier Murray as Colonel Commandant, R.A.V.C., and other items, which will appear in the next issue of the R.A.V.C. *Journal*.

The Retiring Director and his Successor

Brigadier J. J. Plunkett, C.B.E., relinquished the appointment of Director, on the expiry of his tenure on March 1st, 1951. Brigadier Plunkett leaves the Service after a long and arduous career. He was commissioned in the R.A.V.C. in August, 1914, and saw active service throughout the first war in France, and later on the North-West Frontier of India, and throughout the late war.

During his tenure of office as Director the difficult task of steering the Veterinary and Remount Service through post-war problems has been ably handled, and he has left a considerable measure of security for the future of the Corps.

The various tasks which the Corps have to perform in these modern times make it seem certain that its services will be required for as long as anyone can see ahead.

Brigadier Plunkett throughout his service was five times Mentioned in Despatches, was awarded the O.B.E. in World War I and the C.B.E. in World War II.

The new Director is Brigadier A. G. Heveningham, O.B.E., who assumed office on March 1st, 1951.

Brigadier Heveningham served with distinction in the ranks of the R.A.V.C. during the First World War. He was in France from 1914 to 1919 and with the British Army of the Rhine until 1920. During the war he was Mentioned in Despatches and received the Meritorious Service Medal.

He later commenced his veterinary studies at the Royal (Dick) Veterinary College, and, whilst a student, was appointed to a commission in the Royal (Dick) Veterinary College Contingent of the O.T.C. in 1924. After graduation he was commissioned in the R.A.V.C. in September, 1926.

During his service in the Corps he has held various important appointments, mostly in the Middle East, in Sudan, Egypt, Palestine and Transjordan. After the war he held the three appointments successively of Assistant Director Veterinary and Remount Services on the Headquarters of British Troops in Palestine and Transjordan, British Military Mission in Greece, and latterly B.A.O.R.

He was awarded the O.B.E. in June, 1948, was promoted Lieut.-Colonel in July, 1949, and Colonel on March 1st, 1950.

Brigadier Heveningham's varied experience and wealth of administrative knowledge in many theatres will help him to direct the affairs of the R.A.V.C. through these difficult times, and it is confidently expected that throughout his tenure of office the Corps will maintain its high tradition for efficiency and popularity. He has unbounded energy and gets on so well everywhere that we are assured of his success.

Colonel Commandant, R.A.V.C.

Brigadier G. A. Kelly, C.B., has been appointed Colonel Commandant of the R.A.V.C. in succession to Brigadier C. A. Murray, C.B.E., with effect from November 2nd, 1950.

As a past Director at the War Office, Brigadier Kelly is well known to most of us. He carried most efficiently the burden of Director for the latter part of the last war and during the early days of the post-war emergency period. All of us know how much is owed to him for the very successful accomplishment of this task.

We welcome him as Colonel Commandant, knowing full well that in social as well as official matters he will be a tower of strength, and will willingly give any support he can at the right time.

Brigadier C. A. Murray, C.B.E., has retired from office as Colonel Commandant of the Corps.

During Brigadier Murray's tenure of office as Colonel Commandant, and indeed for many years before it during his active career, he has always been to all of us an inspiration. His great efficiency, unbounded knowledge and charming personality have done much to further the interests of the Corps, and although we lose him from his official position, we are glad to know that he resides in the centre of things, and is anxious to keep in touch, which no doubt he will do.

The Corps owes him a debt of gratitude which is hard to measure.

Annual Dinner, R.A.V.C. Officers' Club

The Annual Dinner of the R.A.V.C. Officers' Club will be held at Grosvenor House on Friday, June 8th, 1951, at 7.30 for 8 p.m.

All intending to be present who reside some distance from London are strongly recommended to book hotel accommodation well in advance in view of the Festival of Britain.

R.A.V.C. Golfing Society—1951 Meeting

The Annual Meeting of the Society will be held by kind permission of the North Hants Golf Club at Fleet, Hants, on Thursday, June 7th, 1951.

Programme of Events

Morning

1. R.A.V.C. Challenge Cup; 18 holes Medal Play (Scratch Singles).
2. R.A.V.C. Founders' Cup; 18 holes (Singles).
3. The Conder Cup. Nine holes handicap. Confined to members 55 years and over. These three events will be played concurrently.

Afternoon

Nine holes Bogey Handicap for Captain's Prize (first), Club Prize (second)

Notes

1. R.A.V.C. Challenge Cup and Founders' Cup. No competitor may take more than one of these prizes.
2. Competitors should choose their own partners. The Hon. Secretary will arrange partners if necessary.
3. Competitors will declare their lowest club handicap before commencement of play.
4. Competitors should be ready to start at 10 a.m. The order of starting will be voluntary.
5. Members are requested to notify the Hon. Secretary at R.A.V.C. Laboratory, Aldershot (*a*) if it is their intention to play, (*b*) if lunch will be required at the Club House, (*c*) if they require caddies.

Annual General Meeting

The Annual General Meeting of the Society will be held in the Committee Room of the Club House after tea. The agenda will be as follows:—

Minutes of last meeting; Statement of accounts; Election of office-bearers; Arrange place and date of next meeting; Vote of thanks to North Hants Golf Club; Any other business.

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THE FIRING OF HORSES AND LIVESTOCK INSURANCE

The firing of horses in its relation to the insurance of livestock has been the subject of discussion between underwriters and brokers, under the following circumstances. Several American agents have pressed the brokers to amend Question No. 2 in the Standard Proposal Form "Not Blistered and/or Fired," and to get the underwriters to refrain from loading the premium in respect of fired horses. One firm of brokers has gone so far as to produce a veterinarian's opinion to show that the operation of firing actually lessens the underwriter's risk!

This veterinarian was asked to give his reasons why trainers and veterinary surgeons fire horses.

His comments were taken down *verbatim*, and are as follows:—

> 'Firing is done as a matter of precaution to set up an acute inflammation, particularly in osslet cases which might cause arthritis and lameness, thus impeding the value and ability of the horse concerned. Osslets are a deposition of calcium at the extremities of the bones (ankles and knees). Firing is the burning of the tissues by using a sharp-pointed instrument, thus making tiny holes in the skin. These are dressed with medicants, thus allowing greater penetration of these medicants."

Formerly veterinarian to a leading breeder in Virginia, U.S.A., he does not consider firing an operation, and feels such treatment is for the good of the animal, to keep him sound. The practice, he says, would not be so universal if such were not beneficial for the animal. "As far as paying an additional premium" (*sic*) "this is absurd, and no owner here would consider it. Actually the underwriters should feel that 'firing' is a treatment which improves the insured animal."

In order to get a professional ruling on the above, it was submitted by the London Livestock Underwriters to an eminent London practitioner, with years of experience with Army horses, and the author of a number of professional text books—who, in turn, to substantiate his ruling, submitted the above statement to a Professor at the Royal Veterinary College.

The text of these veterinary rulings is as follows:—

(1) "I have read Mr. ——'s letter on "firing" horses, and cannot agree that Dr. ——'s statements are either sensible or true. For instance, it is difficult to know what he means by the extremities of the ankles and knees.

"Firing is not done (in this country at any rate) for the supposed purpose of preventing disease but for the definite purpose of curing it. Its immediate object is to draw inflammation from deeper structures to the surface. Nobody but a fool would inflict *permanent* unsightly blemishes upon the legs of perfectly sound animals.

"The very presence of such blemishes would indicate weakness, and that some pathological condition had existed for which a drastic treatment had been applied. Consequently a fired horse would be a worse risk than an unfired one; and a higher premium would be thoroughly justified, especially as firing is not by any means 100 per cent. effective. It is sheer nonsense to say that firing improves a sound animal. Also it is untrue to say that firing is not an operation It is one which requires skilful performance, and under

local anaesthetic. I and my two colleagues are agreed that this is the true position."

(2) "I have read the letter *re* firing of horses.

"Firing of horses is quite a serious operation and demands either a local or general anaesthetic. When a man talks of it not being an operation and being used as a preventative, it makes me think that he must be of the sixteenth century line of thought or a pupil of some Arab or Rural Irish Horse Doctor. Such remarks are sheer nonsense and can have no modern scientific backing

"Firing is done and with good effect to remedy some disease process. Therefore, a fired horse is one in which there has been something wrong. A fired horse, as a rule, never fetches the same price as does his neighbour who has not been fired. As a rule there is considerable chance of the disease for which he was fired becoming active again.

"Each case must be considered on its merits, but if I were to make a rule I should want a higher premium for a fired horse than for one in which there was no abnormality to necessitate firing."

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INTERNATIONAL PONY-BREEDERS' FEDERATION

Professor Mitchell as the First President

In its issue of February 22nd *The Scotsman* records that at a Press conference in the Royal (Dick) Veterinary College, Edinburgh, on the previous day, Mr J. G. Speed, M.R.C.V.S., lecturer in the department of anatomy, reported on a recent congress which he attended in Cologne, at which an International Pony-breeders' Federation was formed. The first President is Professor W. M. Mitchell, Principal of the Royal (Dick) College, and the next congress will be held in Edinburgh in 1952.

It was explained that the war had left the greater part of Europe with no breeding stocks of ponies, and such animals as remain are aged and would soon die out. Thousands of ponies are urgently required in Europe for farm and transport work. Britain, Iceland, and Norway were the countries which possessed the necessary breeding stocks.

Tariff restrictions and other conditions, it was pointed out, had stopped the export of ponies from Britain, and so not only had the trade been killed but even the breeding of ponies had been to a large extent brought to a standstill. Some approach would have to be made to the Government to see whether the tariff could be removed.

The aim of the International Pony-breeders' Federation was to include as a long-term policy the founding of pure-bred breeding herds, and maintaining these to form the foundation for selective breeding in the future and for the production of stallions. "Britain is the obvious place to keep and breed foundation herds," Mr. Speed said, "because we have the type of rough uncultivated land most suitable for the job, and we have the breeds of ponies." The kind of ponies wanted were the hill and moorland breeds up to about 12 hands and a larger type about 14 hands. Western Germany was in the most urgent need of ponies.

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BRITISH HORSE SOCIETY

At the annual general meeting of the British Horse Society on February 1st, members were gratified to have acceptance of the invitations extended to General Sir Richard McCreery, Acting Master of the Blackmore Vale, and to Colonel the Hon. C. Guy Cubitt, to occupy the position of President for the present year and the year 1952 respectively.

In its report of the proceedings *Horse and Hound* states that warm appreciation was recorded of the generous donation by H.M. the King to the Olympic Games and International Equestrian Fund and the Horse and Pony Benefit Fund, also of H.R.H. Princess Elizabeth's presentation to the former fund, for which money is so urgently required during the next few months.

Colonel Ansell was appointed to represent the Society at the Federation Equestre International and it was stated that English has now been adopted as the second official language (in addition to French) of this Federation. An official translation of the F.E.I. rules will shortly be available.

Colonel Ansell has been appointed jointly by the International Horse Show Committee, the B.S.J.A. and the Greyhound Racing Association as show manager of the International, which will be held at the White City from July 23rd to 28th, and the Horse of the Year show at Harringay from October 3rd to 6th. These shows will be run independently of one another from 66, Sloane Street, London, S.W.1

Membership of the Pony Club is now in the region of 22,000, and 91 instructors attended the nine P.C. Instructors' Courses held during the past year. Over 12,000 copies of *The Pony Club Annual* have been sold.

The report of the Rosebery Committee dealing with the slaughter and export of horses has now been issued and everything done to ensure that appropriate action should be taken as quickly as possible. An order has been drafted concerning the transport of horses by rail and road and is being considered by the appropriate bodies.

In the course of the proceedings it was suggested that the B.H.S. should start a register of show horses, "since quite a number of winning animals are purchased by fresh owners who change their names and show them either deliberately or unwittingly as novices." The case for and against such a register was argued at some length "and no real agreement achieved."

It was also suggested that the Horse and Pony Benefit Fund should contribute to the research into grass sickness, but Mr. Steele-Bodger, M.R.C.V.S., pointed out that such a research was already being carried out with the assistance of State funds.

The probable shortage of heavy horses in the future was discussed at some length and the Past-President, Mr. W. J. Cumber, expressed surprise at a remark made in the House recently by the Minister of Transport to the effect that he would like to see them off the road. Another member declared that the Ministry of Agriculture was doing all it could to assist the various breeds.

Everything was being done to ensure that horses and ponies would be on show during the Festival of Britain.

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ADDRESSES OF DISEASE-INFECTED PREMISES

The list given below indicates, first, the county in which are situated the premises on which disease has been confirmed, followed by the postal address and date of outbreak.

Foot-and-Mouth Disease:

Rutland.—Manor Farm, Glaston, Uppingham (Mar. 2nd).

Swine Fever:

Ayrshire.—No. 6 Holding, Mainholm, Ayr (Mar. 12th).

Lincs (*Lindsey*).—Queensway Allotments, East Common Lane, Scunthorpe (Mar. 2nd).

Midlothian.—Lesse's, West Summerlee, Gylemuir Road, Corstorphine (Feb. 28th).

Norfolk.—Hill Farm, Hackford, Norwich (Feb. 27th).

Notts.—Bridge Farm, Thurgarton, Notts (Feb. 27th).

Warwicks.—Corporation Public Works Department, Cheston Road, Aston, Birmingham (Mar. 2nd).

Yorks (*E.R.*).—Drainside Gardens, Fountain Road, Hull (Feb. 28th); High Farm, Lime Tree Lane, Bilton (Mar. 1st).

Yorks (*W.R.*).—Rear of Bridge Inn, Darfield, Barnsley (Feb. 26th); 10, Main Road, Edlington (disease at Howbeck Dyke Farm, Edlington) (Feb. 28th); 15, Low Road, Warmsworth, Doncaster (Mar. 1st).

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BRITISH MEDICAL ASSOCIATION

Dr. A. W. S. Sichel, of Capetown, President of the Medical Association of South Africa since 1945, has accepted the presidency of the British Medical Association for the year 1951-52. Dr. Sichel qualified at Edinburgh in 1912 and has been a member of the B.M.A. since 1920.

The annual meeting of the B.M.A. will be held in London this year. The original intention had been to hold it in Johannesburg, as a joint meeting with the South African Medical Association.

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CONTROL OF BRUCELLOSIS

"Early in 1950 the World Health and Food and Agriculture Organisations (W.H.O. and F.A.O.) were asked by their member-countries to produce a plan for combating brucellosis," observes *The Lancet* in an annotation (February 24th, 1951) and continues: "Their immediate response was to select a panel of experts on the disease and designate 12 centres in various countries which would stimulate research and training in field and laboratory methods. The report of the panel's first meeting in Washington makes encouraging reading because it squares up to a world-wide problem. In the United States, halving the number of cattle infected with brucella has saved $50 000 000 annually, and eradication of the disease from Norway has cost less than a year's toll among farm animals. Since brucellosis does not pass from man to man, the human infection can best be controlled by eradicating the disease from animals; but for this accurate diagnosis and reporting are

essential. The panel recommends that all governments should make brucellosis, whether in man or in animals, a reportable disease and it proposes a central pool of information on which all countries may draw. With probably at least 20 per cent. of British cows infected, we have a stake in this campaign; and it deserves the widest support.

"As an earnest of its practical intentions the panel includes in its report an excellent account of current knowledge of the disease, though it says little on the clinical side. Brucellosis in this country means infection with *Brucella abortus;* but *Br. melitensis* has been isolated from cow's milk in some areas and we cannot dismiss the possibility that this organism may become more widespread. The report deals with modes of transmission to man, including entry through the mucous membranes and the conjunctiva and airborne spread. Modern laboratory methods of diagnosis are described, as are the newer methods of treatment, though none of these have yet proved really satisfactory. The main burden of the report bears, as it should, on brucellosis in farm animals, on the methods of diagnosing such infections, and on the production and control of strain-19 vaccine which is widely used in cattle. The panel is well aware of the variations in the method and in the antigens now used for agglutination tests and in the techniques for culturing the organism. It offers to distribute stock cultures and sera, and these should help to improve laboratory standards of diagnosis. It also describes the new ring or A.R.B. test in which a stained antigen is added to whole milk and, if positive, the antigen collects on the fat globules to give a coloured cream line. This is a fairly sensitive test and should simplify field tests on infected herds. The detailed instructions for the control of brucellosis in swine will interest the agricultural and public-health authorities in countries where *Br. suis* infections are widespread. There are many distinguished names on this international panel of experts, and the report shows that they mean to get on with the job."

[1] Joint F.A.O./W.H.O. Expert Panel on Brucellosis. Report of the first session. Washington, November, 1950.

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TRYPANOSOMIASIS IN WEST AFRICA

Research Institute Opened at Kaduna

In a recent issue we reproduced from the Colonial Office publication *Commonwealth Survey* a review of the work and aims of the East African Tsetse and Trypanosomiasis Research and Reclamation Organisation. In a subsequent review, headed as above, it is recorded that the new West African Institute for Trypanosomiasis Research, built at Kaduna in Nigeria at a cost of £234,000, was opened by Sir John Macpherson, the Governor of Nigeria, on January 31st.

"This Regional Institute will play a vital part in the struggle against the tsetse-borne trypanosomiasis of man and beast which is such a major obstacle to economic and social progress in Tropical Africa. Some indication of the magnitude of this problem may be gauged from the fact that about 4,500,000 square miles of Tropical Africa are infested with various species of the tsetse fly, and in this zone both man and beast are exposed to the risk of infection with trypanosomiasis, which is a debilitating, and often fatal, disease.

"In recent years exhaustive studies of the tsetse fly and trypanosomiasis problem in the British Tropical African territories have been undertaken by leading British scientists. These studies, published for the Colonial Office by His Majesty's Stationery Office, comprise *Trypanosomiasis in Eastern Africa 1947* by Professor P. A. Buxton; *Trypanosomiasis in British West Africa* by Professor T. H. Davey, and *Tsetse Flies in British West Africa* by T. A. M. Nash. Dr. Nash also wrote, in the same series, an account of the Anchau Rural Development and Settlement Scheme in Nigeria. This scheme, which was a pioneer project in rural development work in fly-infested country, involved the eradication of the tsetse fly from an area 70 miles long by 10 miles wide in the Zaria Province of Northern Nigeria, and the resettlement of 50,000 people in greatly improved social and economic conditions.

"The decision to build a West African Institute for Trypanosomiasis Research was based on the recommendations of Professor Davey. It was agreed that two-thirds of the funds necessary up to the end of the current financial year should be made available from United Kingdom Colonial Development and Welfare funds, and this was provided for by a first grant of £207,000. For the next five years expenditure will be shared equally between the West African Governments and Colonial Development and Welfare funds.

"The work of the Institute will be carried out partly at the newly-opened buildings at Kaduna and partly at Vom, where the Institute's workers will be able to co-operate closely with the staff of the Nigerian Veterinary Service headquarters station, which is situated there. The Institute will undertake research on all aspects of human and animal trypanosomiasis, including work on the habits and distribution of the insect vectors, and experimental work with trypanocidal drugs. The Institute will maintain a central library and museum, and it will serve as a regional information bureau for West Africa on all problems connected with human and animal trypanosomiasis.

"The work of the Institute will be under the direction of a Statutory Managing Committee, members of which are nominated by the West African Governments, while its Chairman, and the Director of the Institute, who also sits on the Committee, are appointed by the Secretary of State for the Colonies. The present Director is Colonel H. W. Mulligan, formerly of the Indian Medical Service, who has been responsible for the initial planning of the Institute's buildings and for drawing up a programme of work. In the Director's opinion research on animal trypanosomiasis must take precedence over human trypanosomiasis, which can be controlled to a large extent by means already available, and he has drawn up a programme covering entomology, epidemiology, protozoology and veterinary work.

"Research work in the spheres of tsetse fly and trypanosomiasis in the British African territories is under the direction of the Colonial Office Tsetse Fly and Trypanosomiasis Committee. On the international level, scientists from the countries concerned meet as the International Scientific Committee for Trypanosomiasis Research, which was set up as a result of the international conference held at Brazzaville in French Equatorial Africa in February 1948. Also as a result of that conference a Permanent Inter-African Bureau on Tsetse and Trypanosomiasis has been set up at Leopoldville in the Belgian Congo. The Bureau, which has been at work since 1949, is responsible for the preparation of a complete bibliography, the publication of a periodical bulletin and of monographs, and other such services designed to help any individuals or organisations at work in the field of tsetse and trypanosomiasis research reclamation."

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Shropshire F.U., in a resolution, press for the posting of an official notice on the premises when there is a suspicion of fowl pest on a farm. It was stated that two days before one case was confirmed an egg-packing station van had been to the infected farm and then travelled to other farms all round the district.

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Directory of International Scientific Organisations.—Details of the aims, facilities, publications, and governing bodies of more than 150 international scientific bodies are given in this UNESCO handbook, which is now available at H.M. Stationery Office (6s.) The organisations are grouped under three headings: basic sciences, applied sciences, and "miscellaneous."

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The Sydney correspondent of the *Daily Telegraph* reports that the Australian Government has sent two doctors and a veterinary surgeon to investigate an outbreak of encephalitis in Northern Victoria. Seven people are reported to have died from the disease.

CORRESPONDENCE

The views expressed in letters addressed to the Editor represent the personal opinions of the writer only and their publication does not imply endorsement by the N.V.M.A.

FOWL PARALYSIS

Sir,—While Miss Joshua's article on Domestic Poultry and Rabbits proved of great value to me, I should like to query her opinion that there is no treatment for fowl paralysis.

In ten cases showing leg and wing but not eye symptoms three injections of 5 c.c. of 10 per cent. potassium iodide solution intraperitoneally at two day intervals, were followed by clinical recovery in six instances.

In one outbreak in which two back-yard pullets were affected one was treated and recovered, the other was killed and subjected to pathological examination, and showed the typical lesions of this condition.

Yours faithfully,

Olwen D. James.

13, Australia Road,
Gabalfa,
Cardiff.
March 3rd, 1951.

TREATMENT OF STERILITY BY INSUFFLATION OF THE FALLOPIAN TUBES

Sir,—Recently I re-read, in *The Veterinary Record*, No. 37, Vol. 50, dated September 10th, 1938, the extremely interesting clinical communication by Captain W. A. Smith, M.R.C.V.S., of Boyle, on "The Treatment of Sterility in Mares by Insufflation of the Fallopian Tubes."

Captain Smith concludes that the method, as described by him, is simple and the operation requires no special skill. It is definitely claimed that after its use a fair proportion of mares prove fertile.

I was somewhat surprised on re-opening *The Veterinary Record*, No. 21, Vol. 60, dated May 22nd, 1948, to read the reply given by Dr. Burkhardt, of the Veterinary Educational Trust, to a question by Mr. G. Gibson, M.R.C.V.S., of Oakham, during the discussion following Dr. Burkhardt's paper on "Some Clinical Problems of Horse Breeding" presented to the Lincolnshire and District Division, N.V.M.A., at Lincoln on February 5th, 1948.

Dr. Burkhardt states that it is impossible to determine whether the Fallopian tubes are patent in the mare by the Rubens test as in the human and the cow. The uterine ends of the tubes are sealed by small valves which effectively prevent the passage of gas from the uterus and the practice merely resulted in causing acute discomfort to the subject.

Here are two diametrically opposed views which in my opinion require further ventilation.

Regarding Dr. Burkhardt's reference to the cow, I would be pleased to hear of the successful use of the technique in appropriate cases, and the modifications, if any, necessary to Captain Smith's apparatus.

Yours faithfully,

Langrig, Galashiels, Scotland. KENNETH M. JOBSON.
March 5th, 1951.

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DEHORNING OF CATTLE

Sir,—Regarding the dehorning of cattle, I do quite a lot of Highland, Cross Highland, Ayrshire, Shorthorn and Cross bullocks every spring. They all winter outside and consequently are not easily handled. What we do is catch them in a fank and cast them outside with hobbles. Then I chloroform them and saw off the horns. The men are good at casting them, so that the operation does not take very long and we do quite a lot in a day. I cannot recollect ever having had a casualty. Some of the farmers here do it themselves without any anaesthetic, of course surreptitiously so far as I am concerned.

Yours faithfully,

Balevullin, Isle of Tiree, Argyllshire. DUNCAN MACLEAN.
March 3rd, 1951.

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TAENIACIDES FOR DOGS

Sir,—I cannot agree with my friend Churchill Frost (see *Vet. Rec.* March 3rd) that the most effective way of removing tapeworms is to give chloretone, then tacnaline and finally an enema. Mr. Frost says that *all the owner has to do* is to starve the dog—but what about the administration of antemetic and the giving of an enema?

Tacnaline often causes severe emesis, hence the recommendation of chloretone; but both starvation and emesis are great disadvantages and enemata a real nuisance.

After long experience I conclude that nothing is simpler or better than the administration of cestarsol or nemural, neither of which necessitates starvation, antemetics or enemata. In fact, both of them are best given an hour or two after a light meal. There is usually an action within an hour and no additional purgative is required.

What could be simpler?

Yours faithfully,

"Croyland," 658, Finchley Road, H. KIRK.
Golders Green, N.W.11.
March 3rd, 1951.

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NATIONAL BUSINESS

Sir,—To-day in *The Daily Telegraph* I read that £820,000 of taxpayers' hard-earned money has to be abandoned on a Government poultry farm in Gambia. Last week I read in the same paper of a poultry farmer in Sussex who had invested £2,000 in a poultry farm and produced four times as many eggs per year as the previously mentioned national monstrosity.

I will not do more than mention the Ground-nut Scheme, or the fact that we are actually importing coal from the United States of America to Newcastle. This is all common knowledge.

What does concern me is the fact that last week a Division of the N.V.M.A. (for shame I will not mention which one) passed by a majority vote a resolution to allow a Government department to treat 10 per cent. of dairy cows in a given county with penicillin. If as a profession we are so blind or so dull witted—after a legion of catastrophic Government experiments—that by popular vote we allow another such scheme to inaugurate, we deserve to lose our Charter.

Henry Ford said 25 years ago ("Today and Tomorrow") "What England needs is less government in business and more business in government." If that was true 25 years ago, it is a thousand times more true to-day.

I trust that other divisions will vote differently. For the information of voters, the word "research" is no longer used, but "survey tests" has been substituted, both of which of course mean the same thing, indicating Government treatment of mastitis. By that vote the thin end of the wedge has been inserted and any arrest in its progress depends on divisional action.

Yours faithfully,

66, Coningsby Road, L. PITCHER.
High Wycombe,
February 26th, 1951.

DISEASES OF ANIMALS ACT, 1950—GREAT BRITAIN

Summary of Returns of Confirmed Outbreaks of Scheduled (Notifiable) Diseases

Period	Anthrax	Foot-and-mouth	Fowl Pest	Parasitic Mange*	Sheep Scab	Swine Fever
Jan. 16th to 31st, 1951	39	13	127	—	1	38
Corresponding period in—						
1950	24	—	11	—	5	—
1949	4	—	30	—	4	1
1948	3	—	17	—	4	1
Jan. 1st to 31st, 1951	56	13	258	—	3	73
Corresponding period in—						
1950	37	—	21	—	10	—
1949	16	—	45	—	7	2
1948	6	—	54	—	10	3

* Excluding outbreaks in Army Horses.

Tuberculosis (Attested Herds) Schemes

The number of Attested Herds, *i.e.*, herds officially certified as free from Tuberculosis as at January 31st, 1951, was as follows:—

England	Wales	Scotland	Total (Great Britain)
26,549	15,811	13,847	56,207

DISEASES OF ANIMALS ACT, 1950—GREAT BRITAIN

Period	Anthrax	Foot-and-mouth	Fowl Pest	Parasitic Mange*	Sheep Scab	Swine Fever
Feb. 1st to 15th, 1951	25	2	110	—	1	51
Corresponding period in—						
1950	19	4	6	—	3	—
1949	8	1	27	—	3	1
1948	10	—	14	1	5	1
Jan. 1st to Feb. 15th, 1951	81	15	368	—	4	124
Corresponding period in—						
1950	56	4	27	—	13	—
1949	24	1	72	—	10	3
1948	16	—	68	1	15	4

* Excluding outbreaks in Army Horses.